GRUNDIG SERVICE MANUAL

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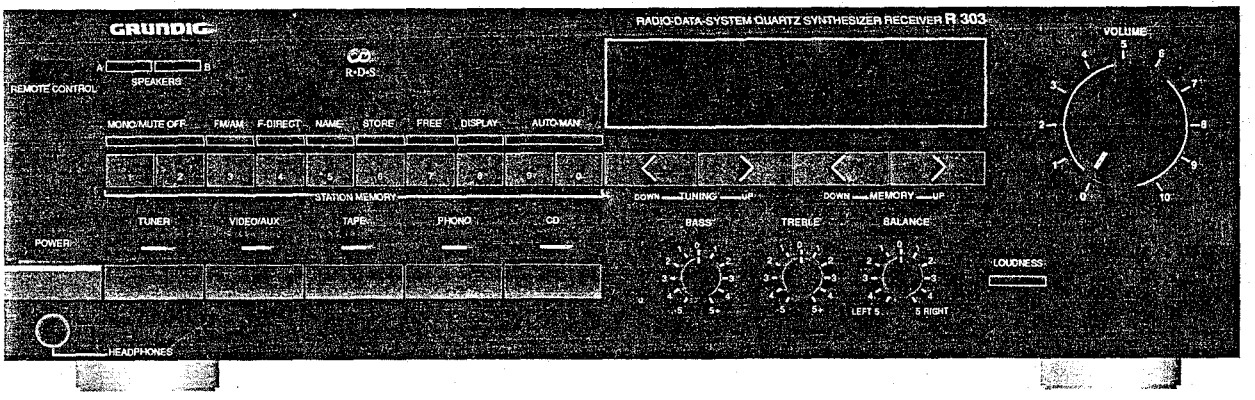
Service Manual

Ⓓ Btx * 32700 #

R 303

R 303 (9.55129-8151 / G.LA 0651)



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Änderungen vorbehalten
Subject to alteration

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Sicherheitsvorschriften / Safety requirements / Prescrizioni de sicurezza / Prescriptions de sécurité / Prescripciones de seguridad

(D) **Achtung:** Bei Eingriffen ins Gerät sind die Sicherheitsvorschriften nach VDE 701 (reparaturbezogen) bzw. VDE 0860 / IEC 65 (gerätebezogen) zu beachten!

Bauteile nach IEC- bzw. VDE-Richtlinien ! Im Ersatzfall nur Teile mit gleicher Spezifikation verwenden!

MOS - Vorschriften beim Umgang mit MOS - Bauteilen beachten!

(GB) **Attention:** Please observe the applicable safety requirements according to VDE 701 (concerning repairs) and VDE 0860 / IEC 65 (concerning type of product)!

Components to IEC or VDE guidelines! Only use components with the same specifications for replacement!

Observe **MOS** components handling instructions when servicing!

(I) **Attenzione:** Osservarne le corrispondenti prescrizioni di sicurezza VDE 701 (concernente servizio) e VDE 0860 / IEC 65 (concernente il tipo di prodotto)!

Componenti secondo le norme VDE risp. te IEC! In caso di sostituzione impiegare solo componenti con le stesse caratteristiche.

Osservare le relative prescrizioni durante, lavori con componenti **MOS**!

(F) **Attention:** Priere d'observer les prescriptions de securite VDE 701 (concernant les reparations) et VDE 0860 / IEC 65 (concernant le type de produit)!

Composants répondant aux normes VDE ou IEC. Les remplacer uniquement par des composants ayant les memes spécifications.

Lors de la manipulation des circuits **MOS**, respecter les pescriptions **MOS**!

(E) **Atención:** Recomendamos las normas de seguridad VDE u otras normas equivalentes, por ejemplo: VDE 701 para reparaciones, VDE 0860 / IEC 65 para aparatos!

Componentes que cumplen las normas VDE/IEC. En caso de sustitución, emplear componentes con idénticas especificaciones!

Durante la reparacion observar las normas sobre componentes **MOS**!

(USA) U.S.& Canada **Attention:** This set can only be operated from AC mains of 120 V/60 Hz. Also observe the information given on the rear of the set.

CAUTION-for continued protection against risk of fire replace only with same type fuses!

CAUTION: to reduce the risk of electric shock, do not remove cover (or back), no user-serviceable parts inside, refer servicing to qualified service personnel. Observe **MOS** components handling instructions when servicing!

(D)

Sicherheitsbestimmungen

Nach Servicearbeiten ist bei Geräten der Schutzklasse II die Messung des Isolationswiderstandes und des Ableitstromes bei eingeschaltetem Gerät nach **VDE 0701 / Teil 200** bzw. der am Aufstellort geltenden Vorschrift, durchzuführen!
Dieses Gerät entspricht der Schutzklasse II, erkennbar durch das Symbol ⧈.

Wir empfehlen die Messungen mit dem **METRATESTER 3/4** durchzuführen. (Meßgerät zur Prüfung elektrischer Geräte nach VDE 0701).

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Ist die Sicherheit des Gerätes nicht gegeben, weil
- eine Instandsetzung unmöglich ist
- oder der Wunsch des Benützers besteht, die Instandsetzung nicht durchführen zu lassen,

so muß dem Betreiber die vom Gerät ausgehende Gefahr schriftlich mitgeteilt werden.

Empfehlungen für den Servicefall

- Nur Original - Ersatzteile verwenden.
  Bei Bauteilen oder Baugruppen mit der Sicherheitskennzeichnung ⚠ sind Original - Ersatzteile zwingend notwendig.
- Auf Sollwert der Sicherungen achten.
- Zur Sicherheit beitragende Teile des Gerätes dürfen weder beschädigt noch offensichtlich ungeeignet sein.
- Dies gilt besonders für Isolierungen und Isolierteile.
- Netzleitungen und Anschlußleitungen sind auf äußere Mängel vor dem Anschluß zu prüfen. Isolation prüfen!
- Die Funktionssicherheit der Zugentlastung und von Biegeschutz-Tüllen ist zu prüfen.
- Thermisch belastete Lötstellen absaugen und neu löten.
- Belüftungen frei lassen.

(GB)

Safety Standard Compliance

After service work on a product conforming to the Safety Class II, the insulating resistance and the leakage current with the product switch on must be checked according to VDE 0701 or to the specification valid at the installation location!
This product conforms to the Safety Class II, as identified by the symbol ⧈.

We recommend that the measurements are carried out using the **METRATESTER 3/4.** (Test equipment for checking electrical products to VDE 0701).

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If the safety of the product is not proved, because
- a repair and restoration is impossible
- or the request of the user is that the restoration is not to be carried out,

the operator of the product must be warned of the danger by a written warning.

Recommendation for service repairs

- Use only original spare parts.
  With components or assemblies accompanied with the Safety Symbol ⚠ only original-spare parts are strictly to be used.
- Use only original fuse value.
- Safety compliance, parts of the product must not be visually damaged or unsuitable. This is valid especially for insulators and insulating parts.
- Mains leads and connecting leads should be checked for external damage before connection. Check the insulation!
- The functional safety of the tension relief and bending protection bushes are to be checked:
- Thermally loaded solder pads are to be suck off and re-soldered.
- Ensure that the ventilation slots are not obstructed.

Technische Daten

Empfangsbereiche:
FM ..... 87,5...108 MHz
MW ..... 528...1605 kHz
MW (USA-Version) ..... 520...1620 kHz

Abstimmraster:
FM ..... Suchlauf 50 kHz/Handabstimmung 25 kHz
MW ..... Suchlauf 9 kHz/Handabstimmung 1 kHz
MW (USA-Version) ..... Suchlauf 10 kHz/Handabstimmung 1 kHz

FM-Empfindlichkeit (75Ω, 40 kHz Hub)
UKW-Mono: ..... 1,1 µV für 26 dB Signal/Rausch-Abstand
UKW-Stereo: ..... 35 µV für 46 dB Signal/Rausch-Abstand

Stereo-Umschaltschwelle: ..... 15 µV bei 98 MHz an 75 Ω

Muting-Schwelle:
Muting aus/ein: ..... 12/9 µV bei 98 MHz an 75 Ω

FM-Fremdspannungsabstand:
gemessen im Bereich 31,5 Hz...15000 Hz, bei 40 kHz Hub und 1 mV an 75 Ω. Spitzenwert nach DIN 45405/Effektivwert
Mono ..... ≥66/71 dB
Stereo ..... ≥64/68 dB

FM-Geräuschspannungsabstand:
Bei 1 mV an 75 Ω gemessen bei 40 kHz.
Spitzenwert nach DIN/Effektivwert über Kurve »A«:
Mono ..... ≥66/74 dB
Stereo ..... ≥61/70 dB

Übertragungsbereich bei FM
von Ant. bis NF-Ausg. ..... <10 Hz...< 16 kHz ≤3 dB

Klirrfaktor
gemessen nach DIN 45500 bei 1 mV an 75 Ω
Mono ..... ≤0,2% bei 1 kHz und 40 kHz Hub
Stereo ..... ≤0,4% bei 1 kHz und 40 kHz Hub

Dynamische Trennschärfe
± 300 kHz, bez. auf 40 kHz Hub, -30 dB Störspannung
Mono: ..... ≥80 dB
Stereo: ..... ≥70 dB

FM-Übersprechdämpfung
1 mV Antennenspannung, 47,5 kHz Gesamthub:
1 kHz selektiv gemessen ..... ≥40 dB

Ausgangsleistungen (DIN 45500):
Musikleistung an 8 Ω ..... 2 x 130 W
Nennleistung an 8 Ω ..... 2 x 75 W

Klirrfaktor:
bei Nennleistung -1 dB ..... < 0,01%

Intermodulation:
..... ≤0,02%

Dämpfungsfaktor (8Ω): ..... ≥ 50

Übertragungsbereich:
Phono: ..... 20 Hz-20 kHz (-3 dB)
Tape,CD,Video/Aux: ..... 8 Hz-45 kHz (-3 dB)

Übersprechdämpfung L-R (für 1 kHz):
Phono: ..... ≥ 65 dB
Tape,CD,Video/Aux: ..... ≥ 75 dB

Fremdspannungsabstand:
bezogen auf Nennleistung
Phono (IEC): ..... 75 dB
Tape,CD,Video/Aux (IEC): ..... 95 dB
Phono (DIN): ..... 70 dB
Tape,CD,Video/Aux (DIN): ..... 91 dB

Geräuschspannungsabstand:
Phono (IEC): ..... 79 dB
Tape,CD,Video/Aux (IEC): ..... 98 dB
Phono (DIN): ..... 74 dB
Tape,CD,Video/Aux (DIN): ..... 91 dB

Eingangsempfindlichkeit (bei Nennleistung):
Phono: ..... 2,2 mV
Tape,CD,Video/Aux: ..... 200 mV

Maximale Eingangsspannung:
(Übersteuerungsfestigkeit)
Phono: ..... 120 mV
Tuner,Tape,CD,Video/Aux: ..... 10 V

Maximale Leistungsaufnahme: ..... ohne Signal 30 W
..... 2x75 W/8Ω 270 W

Specification

Waveband Coverage:
FM ..... 87.5...108 MHz
MW ..... 528...1605 kHz
MW (US version) ..... 520...1620 kHz

Tuning steps:
FM ..... Station search 50 kHz/Manual tuning 25 kHz
MW ..... Station search 9 kHz/Manual tuning 1 kHz
MW (US version) ..... Station search 10 kHz/Manual tuning 1 kHz

FM Sensitivity (75Ω, 40 kHz deviation)
UKW-Mono: ..... 1.1 µV at 26 dB signal/noise ratio
UKW-Stereo: ..... 35 µV at 46 dB signal/noise ratio

Switch-over Threshold: ..... 15 µV at 98 MHz into 75 Ω

Muting Threshold:
Muting off/on: ..... 12/9 µV at 98 MHz into 75 Ω

FM-Signal-to-Noise Ratio (Unweighted):
In the range 31.5 Hz...15000 Hz, 40 kHz deviation and 1 mV into 75 Ω.
Peak value according to DIN 45405/rms value
Mono ..... ≥66/71 dB
Stereo ..... ≥64/68 dB

FM-Signal-to-Noise Ratio (Weighted):
Measured at 1 mV into 75 Ω, 40 kHz deviation.
Peak value according to DIN/rms value to curve »A«:
Mono ..... ≥66/74 dB
Stereo ..... ≥61/70 dB

Frequency Response on FM
from Ant. to AF-Output ..... <10 Hz...< 16 kHz ≤3 dB

Distortion Factor
Measured according to DIN 45500 at 1 mV into 75 Ω
Mono ..... ≤0.2% at 1 kHz and 40 kHz deviation
Stereo ..... ≤0.4% at 1 kHz and 40 kHz deviation

Dynamic Selectivity
± 300 kHz, referred to 40 kHz deviation, -30 dB noise
Mono: ..... ≥80 dB
Stereo: ..... ≥70 dB

FM Crosstalk
1 mV aerial voltage, 47.5 kHz total deviation:
1 kHz measured selectively ..... ≥40 dB

Output Power (DIN 45500):
Music Power into 8 Ω ..... 2 x 130 W
Nominal Power into 8 Ω ..... 2 x 75 W

Total Harmonic Distortion:
at nominal power -1 dB ..... < 0.01%

Intermodulation Distortion:
..... ≤0.02%

Damping Factor (8Ω): ..... ≥ 50

Frequency Response:
Phono: ..... 20 Hz-20 kHz (-3 dB)
Tape,CD,Video/Aux: ..... 8 Hz-45 kHz (-3 dB)

Stereo Separation (for 1 kHz):
Phono: ..... ≥ 65 dB
Tape,CD,Video/Aux: ..... ≥ 75 dB

Signal-to-Noise Ratio (Unweighted):
at nominal power
Phono (IEC): ..... 75 dB
Tape,CD,Video/Aux (IEC): ..... 95 dB
Phono (DIN): ..... 70 dB
Tape,CD,Video/Aux (DIN): ..... 91 dB

Weighted Signal-to-Noise Ratio:
Phono (IEC): ..... 79 dB
Tape,CD,Video/Aux (IEC): ..... 98 dB
Phono (DIN): ..... 74 dB
Tape,CD,Video/Aux (DIN): ..... 91 dB

Input Sensitivity (at nominal power):
Phono: ..... 2.2 mV
Tape,CD,Video/Aux: ..... 200 mV

Maximum Input Voltage:
(Input overload point)
Phono: ..... 120 mV
Tuner,Tape.CD,Video/Aux: ..... 10 V

Maximum Power Input: ..... without signal 30 W
..... 2x75 W/8Ω 270 W

(F)

Prescriptions de securite

Suite aux travaux de maintenance sur les appareils de la classe II, il convient de mesurer la résistance d'isolement et le courant de fuite sur l'appareil en état de marche, contormément á la norme VDE 0701 § 200, ou selon les prescriptions en vigueur sur le lieu de fonctionnement de l'appareil!
Cet appareil est conforme aux prescriptions de sécurité classe II, signaléé par le symbole ⧈.

Pour ces mesures, nous préconisons l´utilisation du **METRA–TESTER 3/4** (instrument de mesure pour le contrôle d'appareils électriques conformes á la norme VDE 0701).

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Dans le cas où la sécurité de l'appareil n´est pas assurée pour les aisons suivantes:
- la remise en état est impossible
- l'utilisateur ne souhaîte pas la remise en état de l'appareil.

l'utilisateur doit être informé par écrit du danger que représente lùtili sation de l'appareil.

Recommandations pour la maintenance

- Utiliser exclusivement des piéces de rechange d'origine. Les composants et ensembles de composants signalés par le symbole ⚠ doivent être impérativement remplacés par des pièces d'origine.
- Respecter la valeur nominale des fusibles.
- Veiller au bon état et la conformité des pièces contribuant à la sécurité de fonctionnement de l'appareil. Ceci s'applique particuliérement aux isolements et pièces isolantes.
- Véritier le bon état extérieur des câbles secteur et des câbles de raccordement au point de vue isolement avant la mise sous tènsion.
- Véritier le bon état des protections de gaine.
- Nettoyer les soudures avant de les renouveler.
- Dégager les voies d'aération.

(I)

Norme di sicurezza

Successivamente ai lavori di riparazione, negli apparecchi della classe di protezione II occorre effettuare la misura della resistenza di isolamento e della corrente di dispersione quando l'apparecchio e'acceso, secondo le norme VDE 0701 / parte 200 e rispettivamente le norme locali!
Questo apparecchio corrisponde alla classe di protezione II ed è riconoscibile dal simbolo ⧈.

Si raccomanda di effettuare le misure con lo strumento **METRA–TESTER 3/4** (strumento di misura per il controllo di apparecchi elettrici secondo VDE 0701).

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Se la sicurezza dell'apparecchio non è raggiunta, perchè
- una riparazione non è possibile
- oppure è desicierio del cliente che una riparaz. non avvenga in questi casi si deve comunicare per iscritto all'utilizzat.

la pericolosità dell'apparecchio riguardo il suo isolamento.

Raccomandazione per il servizio assistenza

- Impiegare solo componenti originali:
  I componenti o i gruppi di componenti contraddistinti dall' indicaz. ⚠ devono assolutamente venir sostituiti con parti originale.
- Osservare il valore nominale dei fusibili.
- I componenti che concorrono alla sicurezza dell´apparecchio non possono essere nè danneggiati nè risultare visibilmente inadatti. Questo vale soprattutto per isolamenti e parti isolate.
- I cavi di rete e di collegamento vanno controllati prima dell'utilizzo affinchè non presentino imperfezioni esteriori. Controllare l'isola mento.
- E´necessario controllare la sicurezza dei fermacavi e delle guaine flessibili.
- Saldature caricate termicam. vanno rifatte.
- Lasciare libere le fessure di areazione.

(E)

DISPOSICIONES PARA LA SEGURIDAD

Después de operaciones de servicio en aparatos de la clase de proteccion II, se llevará a cabo la medida de la resistencia de aislamiento y de la corriente derivada, con el aparato conectado, de acuerdo con VDE 0701 o de las disposiciones vigentes en el lugar de instalación .
Este aparato corresponde a la clase de protección II, reconocible por el simbolo ⧈.

Aconsejamos llevar a cabo las medidas con el **METRATESTER 3/4** (Instrumento de medida para la comprobación de aparatos eléctricos según VDE 0701).

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Si no se cumple la seguridad del aparato, porque
- la puesta en orden es imposible, o
- esiste el desco del usuario de no realizarla, se ha de comunicar a quien lo haga funcionar, por escrito, del peligro dimanante del aparato.

Recomendaciones para caso de servicio

- Emplear sólo componentes originales.
  Con componentes o grupos constructivos con el indicativo de se guridad ⚠ son de obligada necesidad piezas de repuesto originales.
- Las partes del aparato que contribuyan a la seguridad del mismo no deben estar deterioradas ni ser manifiestamente inadecuadas.
- Esto es especialmente válido para aislamientos o piezas aislantes.
- Los cables de red y de conexión se comprobarán, antes de concc tarlos, en cuanto a defectos externos. Comprobar el aislamiento.
- Se ha de comprobar la función de seguridad de la compensación de tiro o de los manguitos de protección contra doblamientos.
- Repasar los puntos de soldadura sometidos a carga térmica.
- Mantener libres los canales aireación.

Ausbauhinweise

Gehäuseoberteil
- 6 Schrauben Ⓐ herausschrauben.

Chassisplatte
- 3 Schrauben Ⓑ herausschrauben.
- 4 Schrauben Ⓒ herausschrauben.
- Steckverbindungen lösen.

Abschirmblech
- Chassisplatte ausbauen.
- 3 Schrauben Ⓓ herausschrauben.

Halterung für Speicherbatterien
- Chassisplatte ausbauen.
- 2 Schrauben Ⓔ herausschrauben.
- Leitungen ablöten.

Frontblende lösen
- Steckverbindungen abziehen.
- 2 Schrauben Ⓕ herausschrauben.
- Rastnasen Ⓖ ausrasten.

LS-Schalterplatte
- 3 Schrauben Ⓜ herausschrauben.
- Steckverbindungen abziehen.

Bedienplatte
- Frontblende lösen.
- LS-Schalterplatte ausbauen
- 12 Schrauben Ⓗ herausschrauben.
- Steckverbindungen abziehen.

Potentiometerplatte und Lautstärkeplatte
- Steckverbindungen abziehen.
- Lautstärke-, Bass-, Treble- und Balanceknopf abziehen.
- 4 Muttern Ⓘ abschrauben.

Kopfhörerbuchsenplatte
- Frontblende lösen.
- 2 Schraube Ⓚ herausschrauben.

Netzschalterplatte
- Frontblende lösen.
- 2 Schrauben Ⓛ herausschrauben.

RDS Platte
- Steckverbindungen abziehen.
- 2 Schrauben Ⓝ herausschrauben.

NF-Platte
- Abschirmblech ausbauen.
- Steckverbindungen lösen.
- 4 Schrauben Ⓞ herausschrauben.
- 2 Schrauben Ⓟ herausschrauben.

Inputplatte
- Abschirmblech ausbauen.
- 3 Schrauben Ⓠ herausschrauben.
- Masseverbindung ablöten.

Trafo
- Steckverbindungen lösen.
- 4 Schrauben Ⓡ herausschrauben.

LS-Klemmplatte
- Steckverbindungen lösen.
- 2 Schrauben Ⓢ herausschrauben.
- Masseverbindung ablöten.

Netzausgangsbuchsen
- Leiterplatte ablöten.
- Netzbuchsen ausrasten und abnehmen.

Disassembly Instructions

Cabinet top
- Undo 6 screws Ⓐ.

Chassis board
- Unscrew 3 screws Ⓑ.
- Unscrew 4 screws Ⓒ.
- Unplug the connectors.

Metal screen
- Remove the Chassis board.
- Unscrew 3 screws Ⓓ.

Box for the memory batteries
- Remove the Chassis board.
- Unscrew 2 screws Ⓔ.
- Unsolder the leads.

Removing the front panel
- Pull out the plug connections.
- Unscrew 2 screws Ⓕ.
- Disengage catch Ⓖ.

LS-Switch Board
- Unscrew 3 screws Ⓜ.
- Pull out the plug connections.

Keyboard control board
- Loosen the front panel.
- Remove the LS switch board.
- Unscrew 12 screws Ⓗ.
- Pull out the plug connections.

Potentiometer board and Volume board
- Pull out the plug connections.
- Pull off the Volume, Bass, Treble and the Balance knobs.
- Unscrew 4 nuts Ⓘ.

Headphone socket board
- Loosen the front panel.
- Unscrew 2 screws Ⓚ.

Power Switch board
- Loosen the front panel.
- Unscrew 2 screws Ⓛ.

RDS Board
- Pull out the plug connections.
- Unscrew 2 screws Ⓝ.

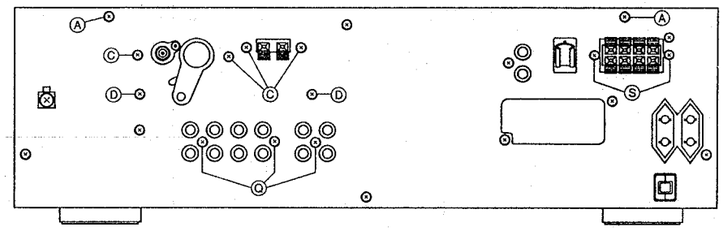
AF board
- Remove the metal screen.
- Pull out the plug connections.
- Unscrew 4 screws Ⓞ.
- Unscrew 2 screws Ⓟ.

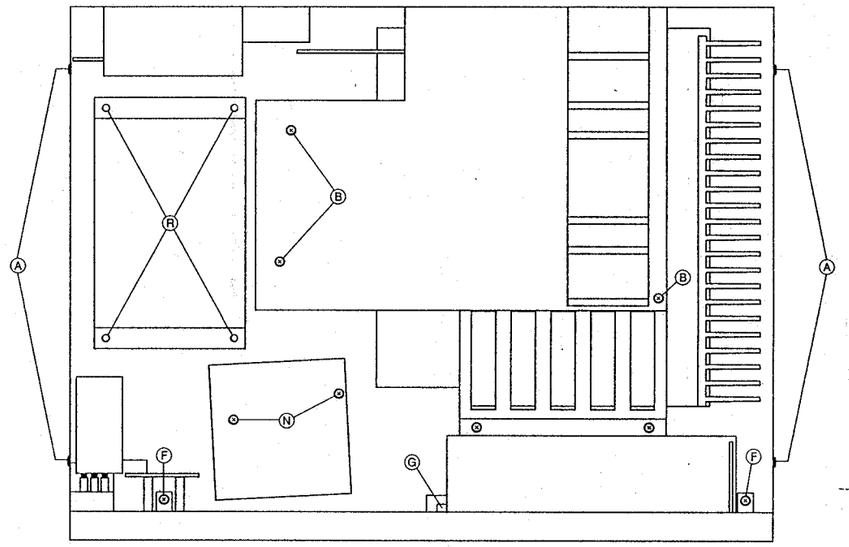
Input Board
- Remove the metal screen.
- Unscrew 3 screws Ⓠ.
- Unsolder the ground connection.

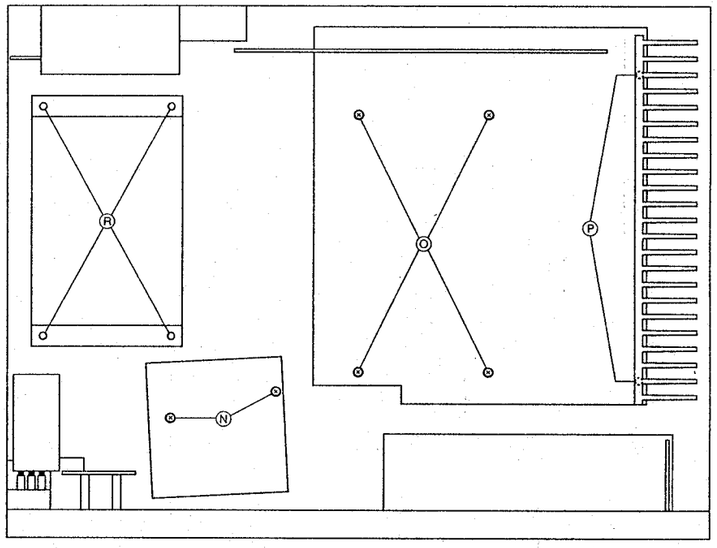
Transformer
- Unplug the connectors.
- Undo 4 screws Ⓡ.

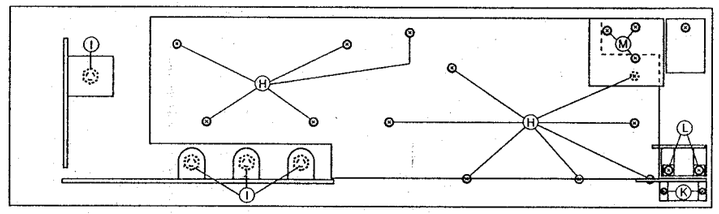
LS-Clamp Board
- Unplug the connectors.
- Undo 4 screws Ⓢ.
- Unsolder the ground connection.

Mains output sockets
- Unsolder the circuit board.
- Disengage the mains sockets and take them out.









GRUNDIG Ersatzteilliste / List of spare parts

HIFI

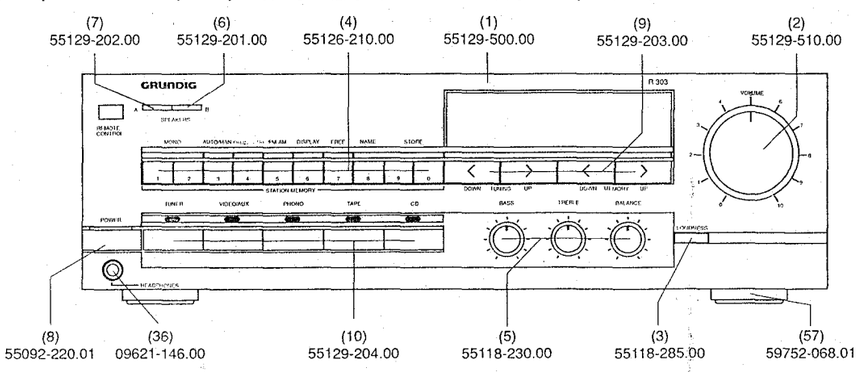
Ⓓ Btx * 32700 #

10 / 91

R 303 RDS

SACH-NR. / PART NO.: 9.55129-8151 SCHWARZ/BLACK
BESTELL-NR. / PART NO.: G.LA 0651

POS. NR. POS. NO.	ABB. NR. FIG. NO.	SACHNUMMER PART NUMBER	ANZ. QUA.	BEZEICHNUNG Ⓓ	DESCRIPTION ⒼⒷ
0001.000	1	55129-500.00		GEHAEUSE FRONT KPL	FRONT CABINET ASSY.
0002.000	1	55129-510.00		DREHKNOPF KPL	ROTARY KNOB CPL.
0003.000	1	55118-285.01		DRUCKTASTE / LOUDNES	KEY VOLUME
0004.000	1	55126-210.00		MEMORYKNOPF	MEMORY BUTTON
0005.000	1	55118-230.00	3	KNOPF / BASS / BALANCE / TREBLE	KNOB
0006.000	1	55129-201.00		TASTE / SPEAKER	KEY
0007.000	1	55129-202.00		TASTE / SPEAKER	KEY
0008.000	1	55092-220.01		NETZTASTE	POWER KEY
0008.100	⚠	59400-321.00		NETZSCHALTER TYP SDL CIP	POWER SUPPLY SWITCH
0009.000	1	55129-203.00	2	TASTENSATZ / MEMORI / TUNING	BUTTON
0010.000	1	55129-204.00		TASTE SELEKT	SELECT BUTTON
0021.000		8134-020-180	27	TASTSCHALTER /BEDIENPL.	FEATHER TOUCH SWITCH
0024.000		59400-311.00		SCHALTER (SUL 192 S) POTIPL.	SWITCH
0026.000		59401-009.00	2	SCHALTER 2 POL. / LS SCHALTERPL.	SWITCH 2 PLS.
0031.000		09623-363.00	2	KOAXIALBUCHSE	COAXIAL-SOCKET
0032.000		09623-429.00		CINCHBUCHSE 8-FACH	CINCH SOCKET 8 FOLD
0033.000		09623-431.00		CINCHBUCHSE 4-FACH	CINCH SOCKET 4 FOLD
0034.000		09623-437.01		CINCHBUCHSE	CINCH SOCKET
0036.000		09621-146.00		STEREO-KOPFHOERERBUCHSE	STEREO-HEAD SET SOCKET
0037.000		09621-236.01		SCHALTERTERMINAL	PUSH TERMINAL
0038.000		09623-404.00		EURO-EINBAUSTECKDOSE	AC-OUTLET
0039.000		55110-210.00		ANTENNENSELEKTOR	ARIAL SELECTOR
0041.000	⚠	55129-815.01		TRAFO KPL	TRANSFORMER ASSY.
0041.100		09602-298.00	4	SICHERUNGSHALTER / TRAFOPL.	FUSE HOLDER
0041.200	⚠	09623-399.00		THERMOSCHALTER 110GRAD /TR.PL.	THERMAL CUT OUT 110 DEGR.
0042.000	⚠	55114-600.00		NETZKABEL M.STECKERBUCHSE	MAINS CABLE ASSY.W.SOCKET
0043.000		09623-317.01		THERMOSCHUTZSCHALTER / NF PL.	TEMPERATURE SAFTY SWITCH NF PL.
0044.000		09621-113.02	2	SICHERUNGSHALTER / NF PL.	FUSE HOLDER / NF PL.
0051.000		59600-071.00		AM-SCHLEIFANTENNE	AM-LOOP-AERAL
0052.000		59600-072.00		ANTENNENHALTER	AERIAL HOLDER
0054.000		59800-099.01		BATTERIEDECKEL	BATTERY COVER
0055.000		59800-113.01		BATTERIEKASTEN KPL	BATTERY CASE
0057.000		59752-068.01	4	FUSS	FOOT
0058.000		59752-069.00	4	ANTI-RUTSCH FILZ	ANTI SLIP FELT
0065.000		59800-787.00		IR-EMPFAENGER	IR-RECEIVER
0066.000		59800-767.00	X	FERNBEDIENUNG RC 2	REMOTE CONTROL RC 2
		55129-941.01		BEDIENUNGSANLEITUNG	INSTRUCTION MANUAL
		72010-720.80		SERVICE MANUAL	SERVICE MANUAL
				X = SIEHE GESONDERTE E-LISTE	X = SEE SEPARATE PARTS LIST



ÄNDERUNGEN VORBEHALTEN ALTERATIONS RESERVED

POS. NR. POS. NO.	SACHNUMMER PART NUMBER	BEZEICHNUNG Ⓓ DESCRIPTION ⒼⒷ
C 2	8699-999-345	TR.13 4,5/20PF VCT 56
C 305	8699-999-345	TR.13 4,5/20PF VCT 56
C 311	8699-999-335	TR.12 3/10PF VCT 56
C 325	8699-999-345	TR.13 4,5/20PF VCT 56
C 327	8699-999-345	TR.13 4,5/20PF VCT 56
C 542	8443-306-117	ELKO 6800UF 63V
C 543	8443-306-117	ELKO 6800UF 63V
C 551	8452-996-150	ELKO CB 2200UF 25V
C 651 ⚠	8660-097-241	SI-KERKO.B-SG 3300PF 20%
C 801 ⚠	8660-097-241	SI-KERKO.B-SG 3300PF 20%
D 1	8309-720-043	Z DIODE 4,3 C 0,5W
D 2	8309-703-218	Z DIODE ZPY 18 ITT
D 4	8309-217-321	DIODE SVC 321 SP-A/B/C/D
D 9	8309-217-321	DIODE SVC 321 SP-A/B/C/D
D 31	8309-215-006	DIODE 1 N 4001 -GA
D 32	8309-215-006	DIODE 1 N 4001 -GA
D 101	8309-215-148	DIODE 1 N 4148 WW.
D 102	8309-720-056	Z DIODE 5,6 C 0,5W
D 103	8309-921-324	LE DIODE TLHY 4213 TFK
D 104	8309-921-324	LE DIODE TLHY 4213 TFK
D 105	8309-921-324	LE DIODE TLHY 4213 TFK
D 106	8309-921-324	LE DIODE TLHY 4213 TFK
D 107	8309-921-324	LE DIODE TLHY 4213 TFK
D 111	8309-215-045	DIODE 1 N 4148 ITT/TID
D 112	8309-215-045	DIODE 1 N 4148 ITT/TID
D 113	8309-215-045	DIODE 1 N 4148 ITT/TID
D 121	8309-198-042	DIODE BAT 42 THO
D 131	8309-720-056	Z DIODE 5,6 C 0,5W
D 140	8309-198-042	DIODE BAT 42 THO
D 307	8309-251-310	DIODE KV 1310
D 308	8309-251-310	DIODE KV 1310
D 309	8309-251-310	DIODE KV 1310
D 311	8309-251-310	DIODE KV 1310
D 469	8309-922-439	LE DIODE TLSY 4290 TFK
D 500	8309-215-148	DIODE 1 N 4148 WW.
D 511	8309-712-752	DIODE MR 752 MOT
D 512	8309-712-752	DIODE MR 752 MOT
D 513	8309-712-752	DIODE MR 752 MOT
D 514	8309-712-752	DIODE MR 752 MOT
D 590	8309-721-030	Z DIODE 5,6 C 1,3W
D 651	8309-215-148	DIODE 1 N 4148 WW.
D 652	8309-215-148	DIODE 1 N 4148 WW.
D 801	8309-215-043	DIODE 1 N 4151 PHI/TFK/
D 802	8309-215-043	DIODE 1 N 4151 PHI/TFK/
DLE 000	8309-925-024	LE DIODE GL-9 HD 23 SHARP
DP 000	59720-027.00	FLUORESZENZ-ANZEIGE
F 5	07202-730.10	FM-DEM.II
F 6	07202-729.10	FM-DEM.I
F 7	19203-124.14	AM-ZF SFL 450 J3
F 8	19202-705.12	FILTER (NACHBARKANAL)
F 9	19202-704.12	FILTER (PILOT) LPF-V20
F 10	19202-704.12	FILTER (PILOT) LPF-V20
F 1/4	19203-126.97	KERAMIKF.SATZ 2XSFE 10,7
IC 1	8305-204-834	IC LM 833 N ELLI 580NSC EING.PL.
IC 2	8305-262-821	IC LC 7821 MOS / EING.PL.
IC 3	8305-260-166	IC LA 1266
IC 4	8305-205-765	IC 7812 3% FAI/NEC/SGS/
IC 01	8305-260-223	IC LA 2231 B DIP/24S / RDS PL.
IC 02	8305-260-340	IC LA 3401 / CHASS.PL.

POS. NR. POS. NO.	SACHNUMMER PART NUMBER	BEZEICHNUNG Ⓓ DESCRIPTION ⒼⒷ
IC 001	8305-262-217	IC LC 7217 MOS
IC 101	8305-208-381	IC M 38112 M4-XXX SP
IC 339	8305-204-339	IC LM 339 N RAY/NSC/TID
IC 501	8305-574-040	IC STK 4040 X SANYO
IC 502	8305-574-040	IC STK 4040 X SANYO
IC 504	8305-205-701	IC 78 M 05 MOT
L 1	07202-710.97	SPULE 7X7
L 2	07202-710.97	SPULE 7X7
L 4	07202-727.12	SPULE (MW-OSZ.)
L 5	8140-526-862	DROSSEL 39 MH 5%
L 01	19202-702.12	MW-VORKR.
L 305	8140-530-260	UKW-SPULE 7/115/A
L 306	8140-530-240	UKW-SPULE 1/3/A
L 307	09218-017.01	HF-DROSSEL
L 308	8140-530-259	UKW-SPULE 7/113/A
L 309	8140-530-259	UKW-SPULE 7/113/A
L 501	09238-197.01	HF-DROSSEL
Q 1	8602-331-011	KER.RES.11 CSB 456 F15
Q 2	8602-331-001	KER.RES.10 CSB 456 F11
Q 101	8602-331-087	KER.RES.87 4,19 MHZ
Q 102	8382-200-897	SCHWINGQUARZ 32,768 KHZ
Q 1+312	8382-312-072	QUARZ 7,2 MHZ
R 66	8790-050-064	ESTR.SK10-A 100 KOHM LIN
R 67	8790-050-064	ESTR.SK10-A 100 KOHM LIN
R 69	8790-050-064	ESTR.SK10-A 100 KOHM LIN
R 302	59703-380.00	LAUTSTAERKEREGLER
R 336	59713-002.00	POTI 100 KOHM / BALANCE
R 348	59713-003.00	POTI 2X10 KOHM / BASS
R 350 ⚠	8701-118-033	KSW SI B 22 OHM 5% -GA
R 352	59713-003.00	POTI 2X10 KOHM / HÖHEN
R 512 ⚠	8700-199-049	KSW AX 0204-GA NB
R 513 ⚠	8700-199-049	KSW AX 0204-GA NB
R 552 ⚠	8701-118-039	KSW SI B 39 OHM 5%-GA
R 553 ⚠	8701-118-047	KSW SI B 82 OHM 5%-GA
REL.651 ⚠	8312-003-230	RELAIS G2R-117P-V-US-SV
SI 1 ⚠	8315-616-003	FS.800 MA/T
SI 2 ⚠	8315-620-003	FS. 2 A/T
SI 4 ⚠	8315-620-003	FS. 2 A/T
T 1	8303-205-550	TRANS.BC 550 B
T 2	8303-205-550	TRANS.BC 550 B
T 101	8303-205-558	TRANS.BC 558 B
T 102	8303-205-558	TRANS.BC 558 B
T 103	8303-205-548	TRANS.BC 548 B
T 104	8303-271-338	TRANS.BC 338-16
T 105	8303-271-328	TRANS.BC 328-16
T 106	8303-271-328	TRANS.BC 328-16
T 107	8303-271-338	TRANS.BC 338-16
T 108	8303-205-548	TRANS.BC 548 B
T 301	8302-991-044	FE-TRANS.2 SK 544 E MOS
T 302	8302-220-987	TRANS.BF 987 E7715 SIE MOS
T 303	8302-220-025	TRANS.BF 240 SIE/VAL
T 304	8302-991-044	FE-TRANS.2 SK 544 E MOS
T 514	8302-210-837	TRANS.BD 827-10B VAL/SIE
T 515	8302-210-838	TRANS.BD 828-10B VAL/SIE
T 518	8302-218-078	TRANS.BDX 78 VAL
T 801	8303-207-548	TRANS.BC 548 C

ÄNDERUNGEN VORBEHALTEN ALTERATIONS RESERVED

GRUNDIG Ersatzteilliste / List of spare parts

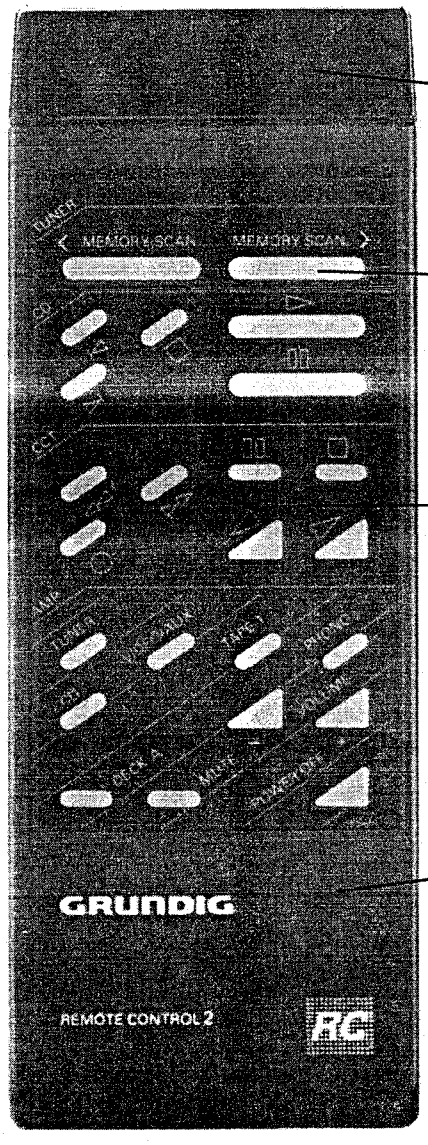
HIFI

Ⓓ Btx ★ 32700 #

RC 2

SACH-NR. / PART NO.: 59800-767.00

POS. NR. POS. NO.	ABB. NR. FIG. NO.	SACHNUMMER PART NUMBER	ANZ. QUA.	BEZEICHNUNG Ⓓ	DESCRIPTION GB
0001.000		75987-531.90		GEHAEUSEOBERTEIL	CABINET TOP
0002.000		75987-531.91		BLENDE	PANEL
0003.000		75987-531.92		TASTENSATZ	KEYS SET
0004.000		75987-531.93		BATTERIEDECKEL	BATTERY LID
0005.000		75987-531.94		BATTERIEFEDER (+)	BATTERY SPRING
0006.000		75987-531.95		BATTERIEFEDER (-)	BATTERY SPRING
0007.000		75987-531.96		BATTERIEFEDER (+-)	BATTERY SPRING
0008.000		75987-531.88		INFRA-SCHEIBE	INFRA-WASHER
0010.000		59800-767.00		IR-SENDER	IR-TRANSMITTER

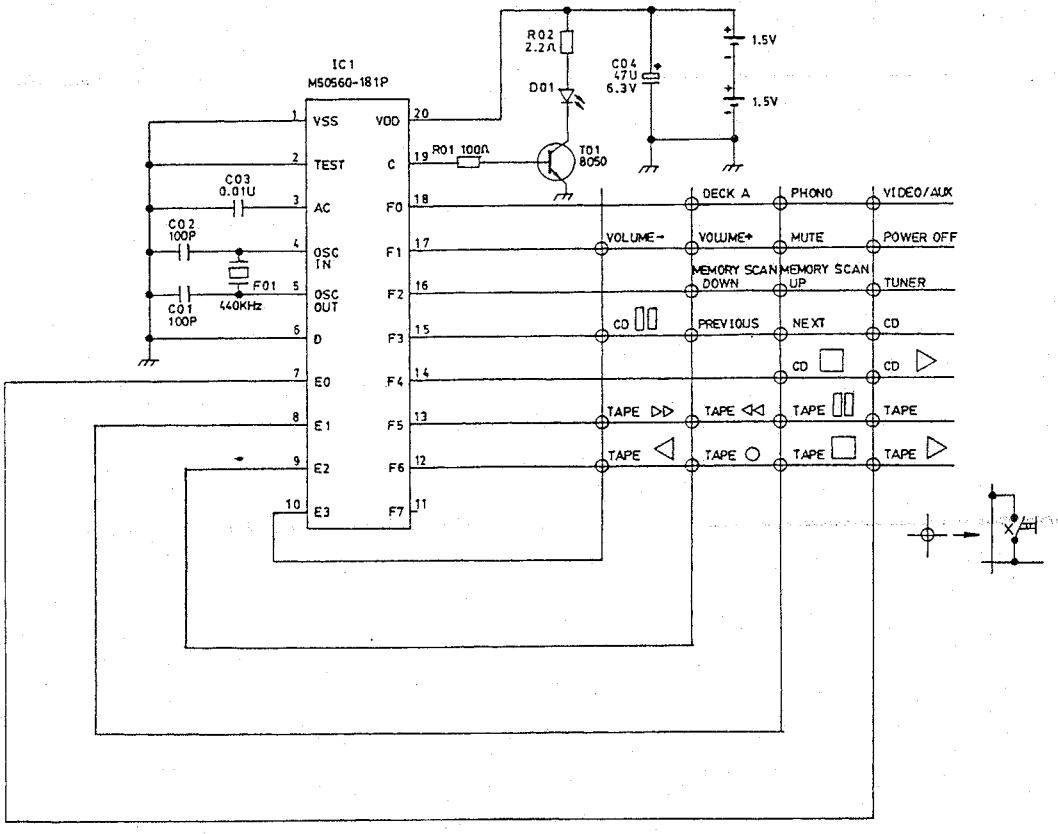


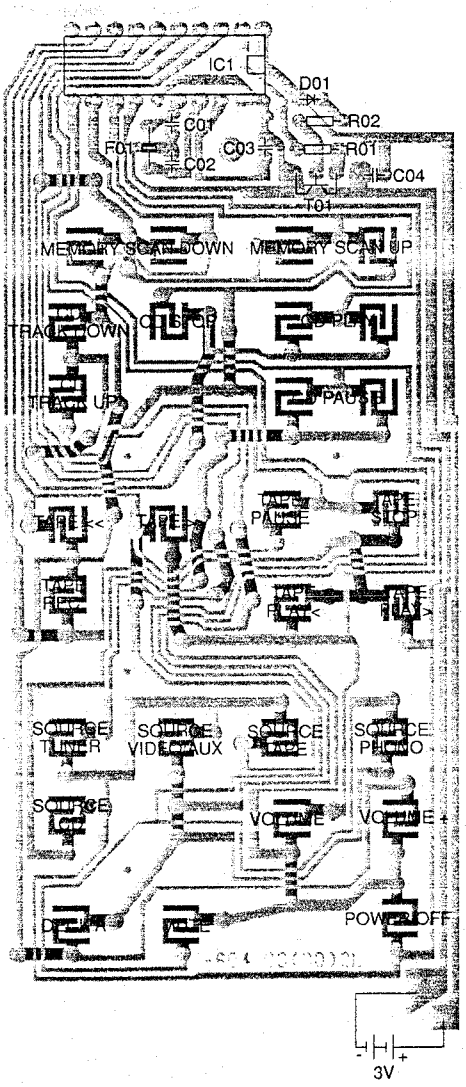
POS. NR. POS. NO.	SACHNUMMER PART NUMBER	BEZEICHNUNG DESCRIPTION
001.000	75987-531.97	IC M 50560-181 P
002.000	75987-531.98	TRANS.JE 8050 D
003.000	75987-531.99	LE DIODE TSUS 5202
004.000	75987-531.89	QUARZ

Änderungen vorbehalten / Alterations reserved

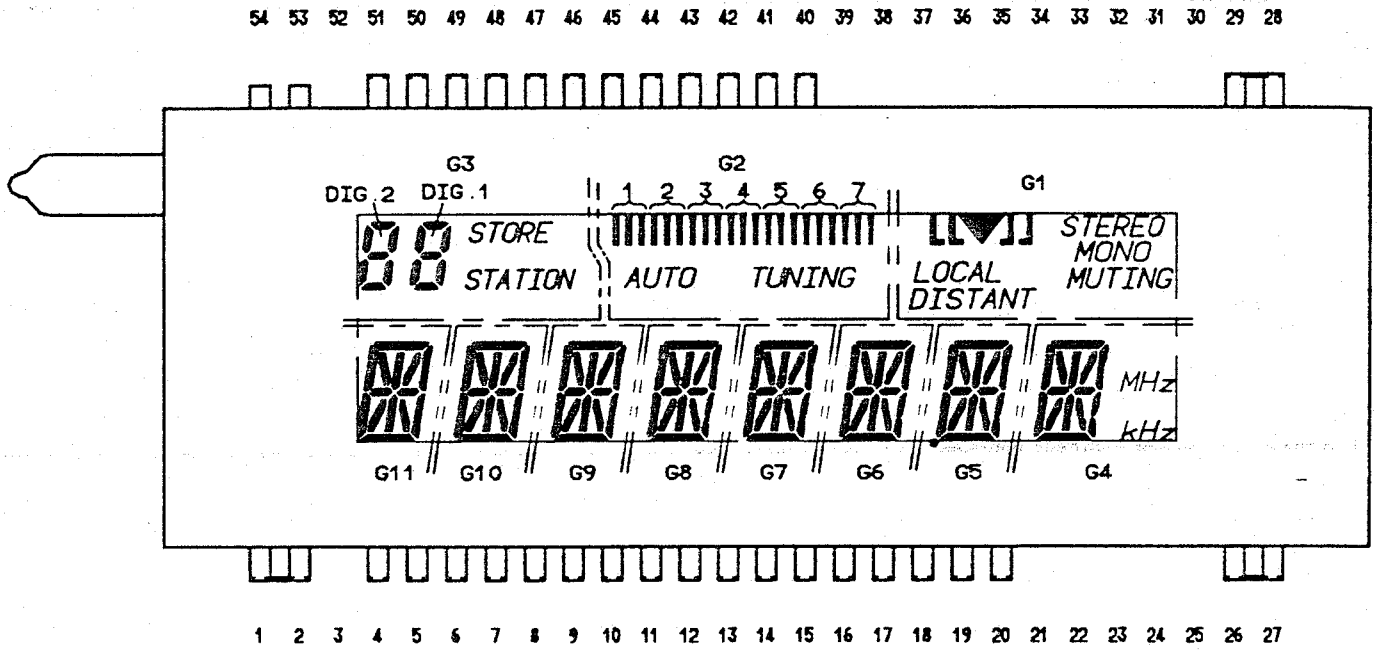
IR-Fernbedienung RC 2

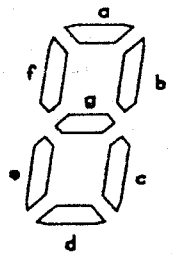
IR Transmitter RC 2

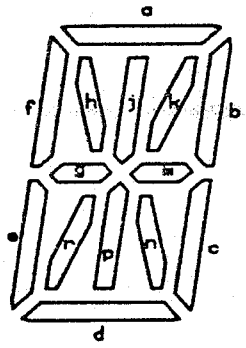




Display







IC601 PIN-NR.	DISPL. PIN-NR.		IC601 PIN-NR.	DISPL. PIN-NR.	
	1	FILAMENT		28	FILAMENT
	2	FILAMENT		29	FILAMENT
	3	NO PIN		30	NO PIN
22	4	G11		31	NO PIN
23	5	G10		32	NO PIN
24	6	G9		33	NO PIN
25	7	G8		34	NO PIN
26	8	G7		35	NO PIN
27	9	G6		36	NO PIN
28	10	G5		37	NO PIN
29	11	G4		38	NO PIN
30	12	S 12		39	NO PIN
34	13	S 8		40	IC
31	14	S 11	20	41	S 1
32	15	S 10	19	42	S 2
33	16	S 9	18	43	S 3
35	17	S 7	17	44	S 4
36	18	S 6	16	45	G3
37	19	S 5	15	46	G2
	20	IC	14	47	G1
	21	NO PIN	9	48	S 13
	22	NO PIN	6	49	S 16
	23	NO PIN	8	50	S 14
	24	NO PIN	7	51	S 15
	25	NO PIN		52	NO PIN
	26	FILAMENT		53	NO PIN
	27	FILAMENT		54	NO PIN

	G1 PIN47	G2 PIN46	G3 PIN45	G4 PIN11	G5 PIN10	G6 PIN9	G7 PIN8	G8 PIN7	G9 PIN6	G10 PIN5	G11 PIN4
S 1 PIN 41	STEREO	1	DIG.2 a	a	a	a	a	a	a	a	a
S 2 PIN 42	MONO	2	b	b	b	b	b	b	b	b	b
S 3 PIN 43	MUTING	3	c	c	c	c	c	c	c	c	c
S 4 PIN 44	TUNED TRIANGLE	4	d	d	d	d	d	d	d	d	d
S 5 PIN 19	L J	5	e	e	e	e	e	e	e	e	e
S 6 PIN 18	LJ	6	f	f	f	f	f	f	f	f	f
S 7 PIN 17	LOCAL	7	g	g	g	g	g	g	g	g	g
S 8 PIN 13		AUTO	STAT.	MHZ	DP						
S 9 PIN 16	DIST		DIG.1 a	h	h	h	h	h	h	h	h
S 10 PIN 15			b	j	j	j	j	j	j	j	j
S 11 PIN 14			c	k	k	k	k	k	k	k	k
S 12 PIN 12			d	m	m	m	m	m	m	m	m
S 13 PIN 48			e	n	n	n	n	n	n	n	n
S 14 PIN 50			f	p	p	p	p	p	p	p	p
S 15 PIN 51			g	r	r	r	r	r	r	r	r
S 16 PIN 49		TUN	STORE	KHZ							

Abgleich / Alignment

Abgleich Alignment	Einspeisung Feeding	Meßpunkt Testpoint	Hinweise Notes	Band	* f	Abgleichpunkt Alignment point	Einstellung Adjustment
Oszillator Oscillator		E		FM	108 MHz	C 311 (h)	8,5 V
					87,5 MHz	L 306 (g)	2,5 V
				MW	531 kHz	L 4 (VI)	1,1 V
Vor-u. Zwischenkreis Aerial band pass cct.	U_e <; Δf = 40 kHz f_{mod} = 1 kHz	3		FM	106 MHz	C 305 (b) C 325 (d) C 327 (e)	max.
					88 MHz	L 305 (a) L 308 (c) L 309 (f)	max.
	U_e <; m = 30 % f_{mod} = 1 kHz			MW	1449 kHz	C 2 (IV)	max.
					558 kHz	L 1 (III)	max.
ZF IF	Abgleich nach Rauschen Alignment by noise			FM	108 MHz	F 6 (i)	max.
						F 5 (k)	min.
	U_e < m = 30 % f_{mod} = 1 kHz	1		MW	1449 kHz	F 7 (VII)	max.
Stereo-Übersprechdämpfung Stereo crosstalk attenuation	G, L mod. 19 kHz Pilot	1		FM		R 69 (C)	1 = 2 Minimum
	R mod.	2					

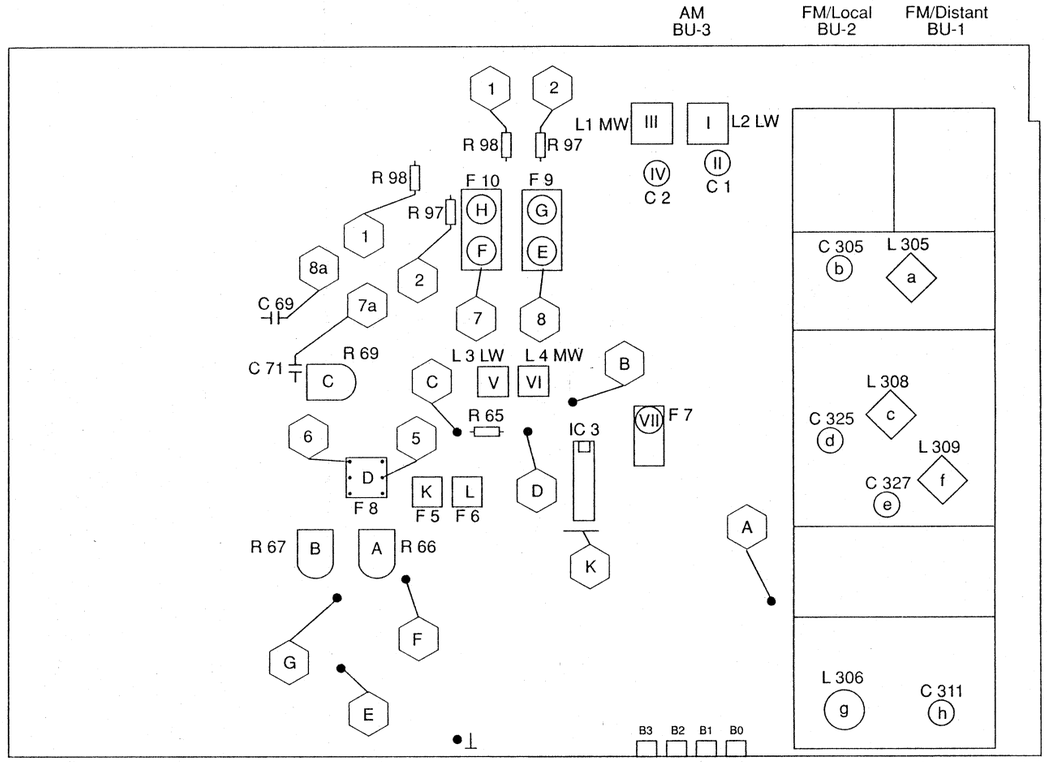
Abgleich Alignment	Einspeisung Feeding	Meßpunkt Testpoint	Hinweise Notes	Band	f	Abgleichpunkt Alignment point	Einstellung Adjustment
Feldstärke-pegel Field strength level	U_e = 1 mV	Display		FM	98 MHz	R 67 (B)	Einstellen, daß letztes Segment gerade aufleuchtet Adjust that the last segment just lights up
Suchlaufpegel Self seek level	U_e = 15 µV		Ue < 15 µV -> kein Stopp / no stop Ue ≥15 µV -> Stopp / stop	FM	106 MHz	R 66 (A)	Suchlaufstopp Self seek stop
Nachbar-kanalfilter Adjacent channel filter	G, 5 114 kHz, 100 mV	6	Das Filter ist vorabgeglichen The filter is preadjusted			F 8 (D)	Minimum
Pilot-und Hilfsträger Pilotcarrier and subcarrier	1, 2 f_{mod} = 38 kHz	1, 2				F 9 (E) F 10 (F)	Minimum
	f_{mod} = 19 kHz					F 9 (G) F 10 (H)	Minimum
RDS	f_{mod} = 56,4 kHz ± 50 Hz Δf = 2-3 kHz	H, 20 pF				L 202 (m)	max.
	f_{mod} = 57,7 kHz ± 50 Hz Δf = 2-3 kHz					L 201 (n)	

Zeichenerklärung
Legende
Légende
Simbologia
Aclaración

- Meßsender/Testgenerator, Générateur/Generatore di misura, Generador frecuencias
- NF-Voltmeter/AF-Voltmeter, Voltmètre BF/Voltmetro BF, Voltimetro de BF
- NF-Generator/AF-Generator, Générateur BF/Generatore BF, Generador de BF
- Digitalvoltmeter/Digital voltage meter, Voltmètre digital/Voltmetro digitale, Voltimetro digital
- Stereogenerator/Stereo-Generator, Générateur de Stéréo/Generatore di Stereo, Generador de Stereo
- Gleichspannungsmeßgerät/DC voltage meter, Voltmètre DC/Misuratore tensione continua, Medidor de tensiõn continua
- Antenne/Aerial, Cadre/Antenna, Antena
- Oszilloskop/Oscilloscop, Oscilloscope/Oscilloscopio, Osciloscopio
- Rahmenantenne/Frame aerial, Cadre/Antenna a telaio, Antena de cuadro
- Einstellung wiederholen/To repeat the adjustment, Répéter le réglage/Ripetere la regolazione, Repetir el adjuste

Abgleichlageplan

Alignment Layout



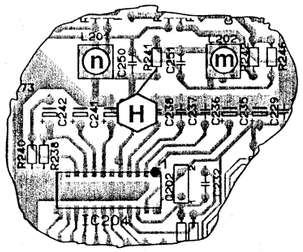


Tabelle für ZF-Programmierung

0 = Brücke geöffnet
1 = Brücke geschlossen

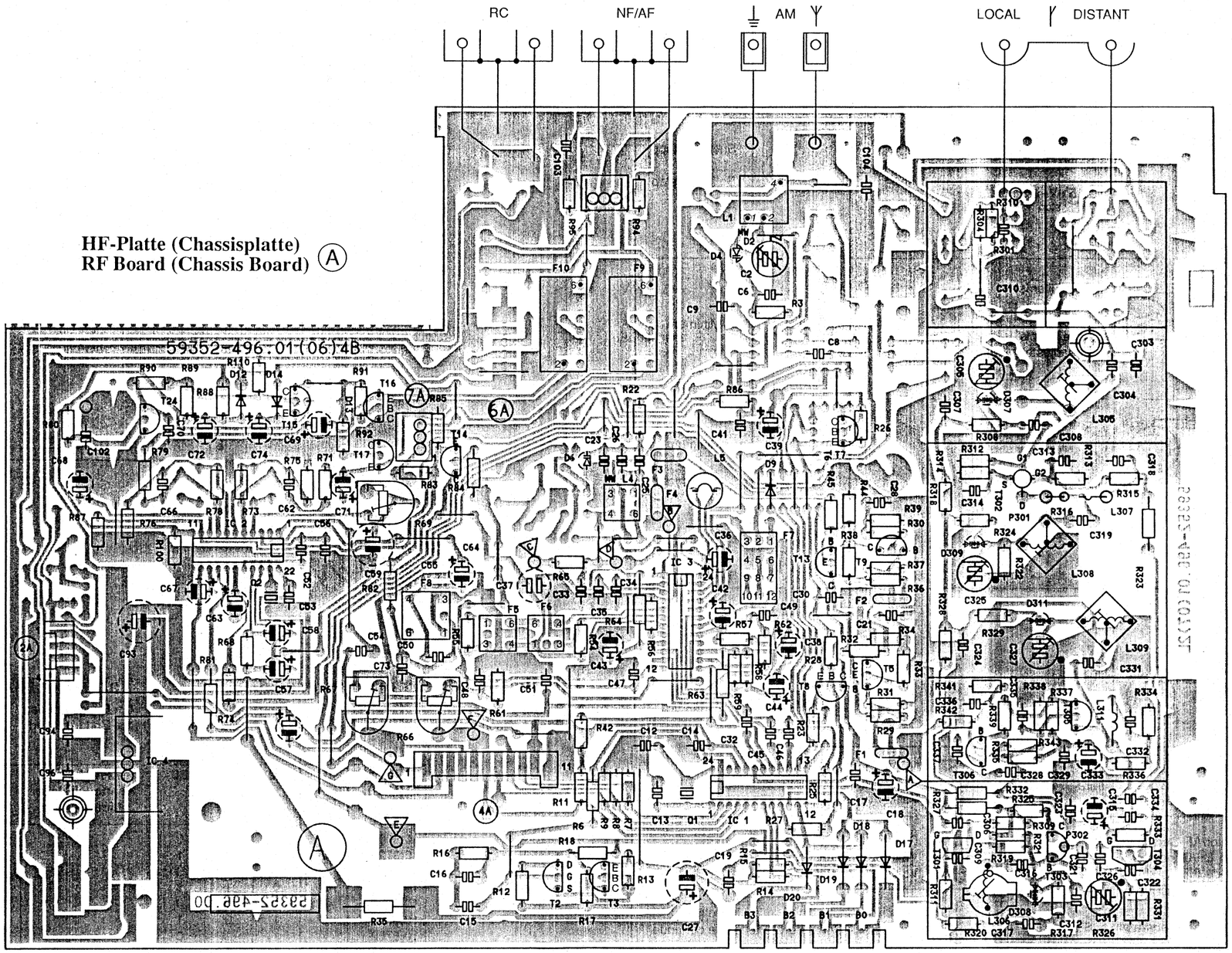
Table for IF-Programming

0 = Bridge opened
1 = Bridge closed

ZF (MHz) IF (MHz)	B3	B2	B1	B0	ZF/IF Filter Kennbuchstabe Ident. letter	ZF/IF Filter Farbe Colour
10,6000	0	0	0	0		
10,6125	0	0	0	1		
10,6250	0	0	1	0		
10,6375	0	0	1	1		
10,6500	0	1	0	0	D	schwarz/black
10,6625	0	1	0	1		
10,6750	0	1	1	0	B	blau/blue
10,6875	0	1	1	1		
10,7000	1	0	0	0	A	rot/red
10,7125	1	0	0	1		
10,7250	1	0	1	0	C	orange
10,7375	1	0	1	1		
10,7500	1	1	0	0	E	weiß/white
10,7625	1	1	0	1		
10,7750	1	1	1	0		
10,7875	1	1	1	1		

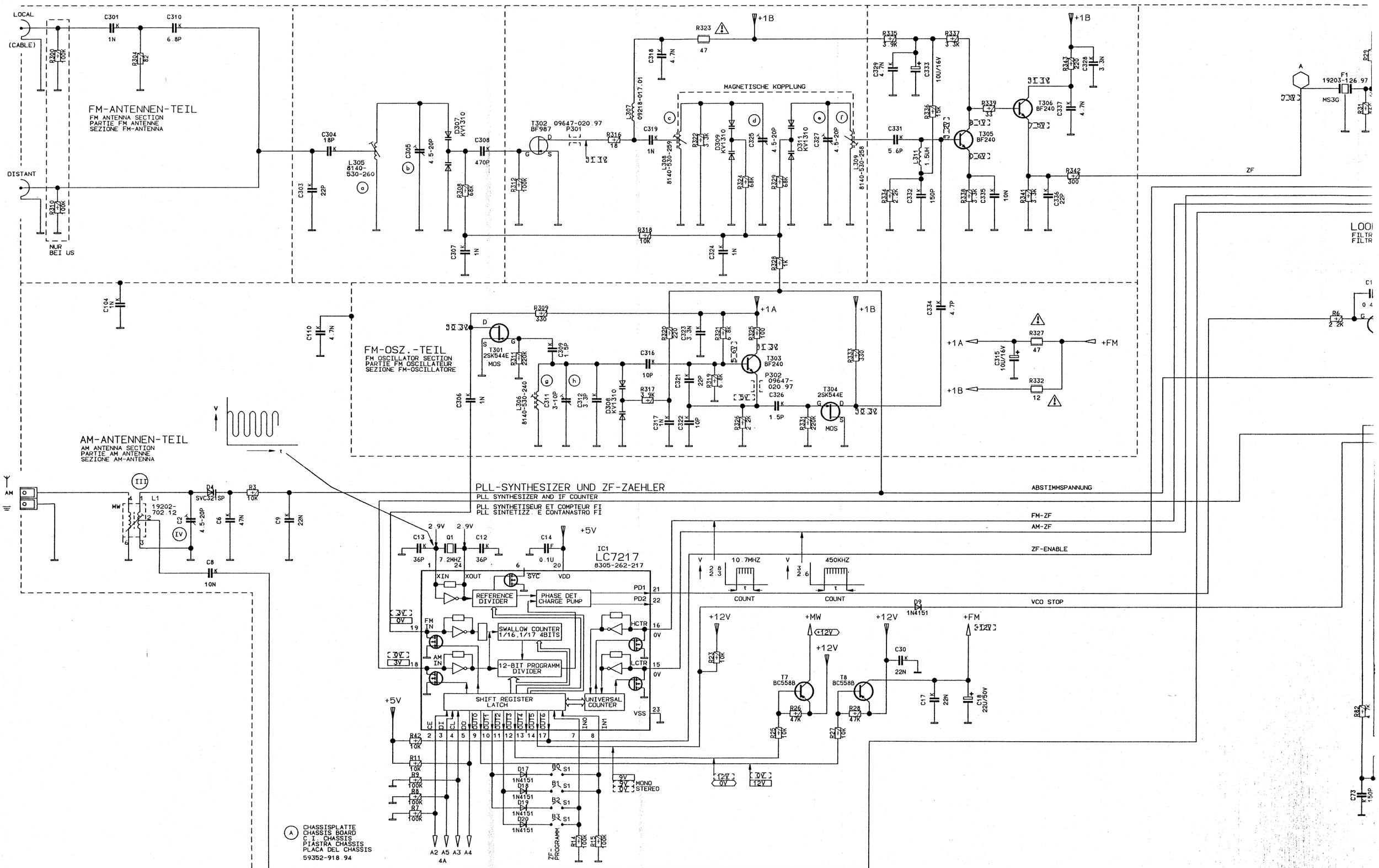
Druckplattenabbildungen / Illustration of Printed Boards R 303

HF-Platte (Chassisplatte)
RF Board (Chassis Board) (A)



R 303 Schaltbild / Circuit Diagram R 303

Schaltbild / Circuit Diagram



Schaltbild / Circuit Diagram R 303

AM RF/ZF UND FM-ZF
AM RF/IF AND FM-IF

RADIO/FI AM ET FI FM
RADIO/FI AM E FI FM

+12V

ZF

F1 19203-126.97 MS3G
F2 19203-126.97 MS3G
T5 BF240
T9 BF240
T13 BF240
2 X MA8
F3 19203-126.97
F4 19203-126.97
F7 19203-124.14
F6 07202-729.10
F5 07202-730.10

IC3
LA1266
8305-260-166

I F BUFFER
I F BUFFER
FM - IF
Q.D
POST AMP.
R F
MIX
AM-IF
DET
REF
OSC
OSC BUFFER
NARROW S-METER
AGC
S-METER
LED DRIVER

IC4
7812
8305-205-765
+12V (11.4-12.6V)
+18.1V
+5V
FROM CONTRO BOARD

T14 BC548B
MPX
TO RDS BOARD

LOOP-FILTER
FILTRE A BOUCLE
FILTRO AD ANELLO

AM-OSZ.-TEIL
AM OSCILLATOR SECTION
PARTIE AM OSCILLATEUR
SEZIONE AM-OSCILLATORE

L5 39MH

PLL SYNTHESIZER
CONTROL BOARD
+5V
A2
A5
A3
A4
D1
CE
CD
CLK
SEARCH-LEVEL
FIELD-S
STEREO
TMUTE

FELDST.SIGNAL
SL-PEGEL

STEREO-DECODER
DECODEUR STEREO
DECODER STEREO

+MW

AM-NF
FM-MPX

IC2
LA3401
8305-260-340

VOL REG
OSC
PHASE COMPARATOR
PILOT DET
VCO STOP
LAMP DRIVER
TRIGGER
SYMMETRICAL REACTANCE CIRCUIT
FF
FF
FF 38KHZ
FF 19KHZ 90°
FF 19KHZ 0°
STEREO SWITCH
DECODER
MUTING CONTROL FM AM CHANGE OVER
MUTING OUTPUT
MUTING FM AM CHANGE
L-OUT
R-OUT
VCC ON MUTING

V 4.5
0
t
MUTE

STUMMSCHALTUNG
MUTING
COMMUTATION SILENCIEUSE
COMMUTAZIONE SILENZIOSA
CIRCUITO DE SILENCIO

POR

DEEMPHASIS
DE-EMPHASIS DEENFASI
DESACCENTUATION DEENFASIS

DE-EMPHASIS FOR	R73/R78	R75/R76	C62/C66
EURO	270K	330K	180P
GB	270K	330K	180P
USA	270K	330K	270P

MPX-FILTER
FILTRE MPX
FILTRO MPX

F8 19202-705.12
F9 19202-704.12
F10 19202-704.12

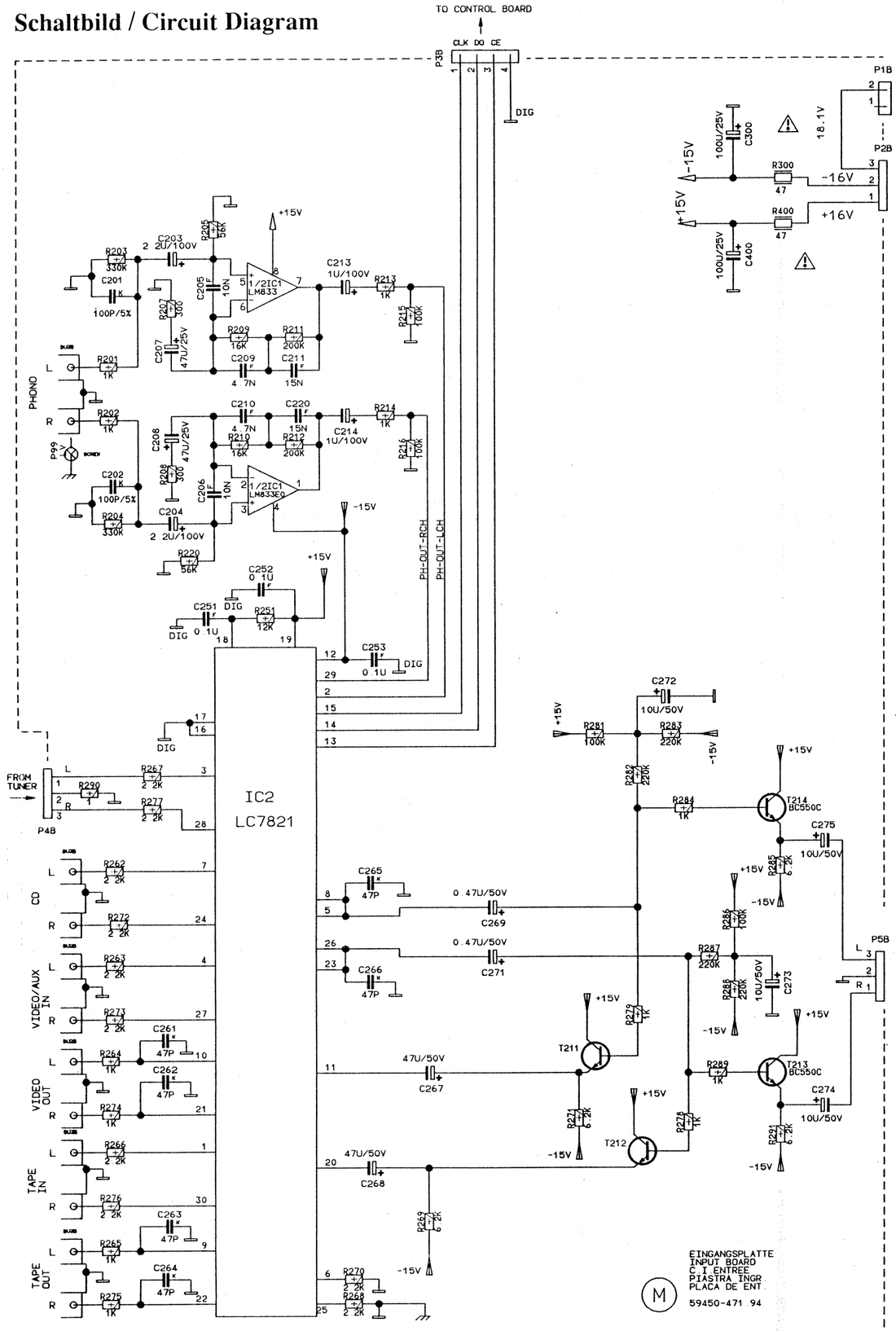
T15 BC558B
T16 BC548B
T17 BC548B
T24 BC548B

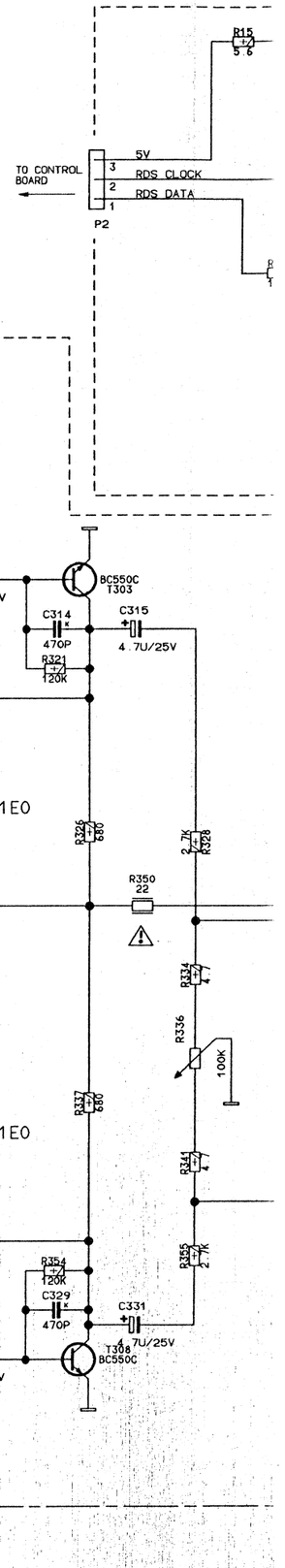
P1
TO INPUT BOARD

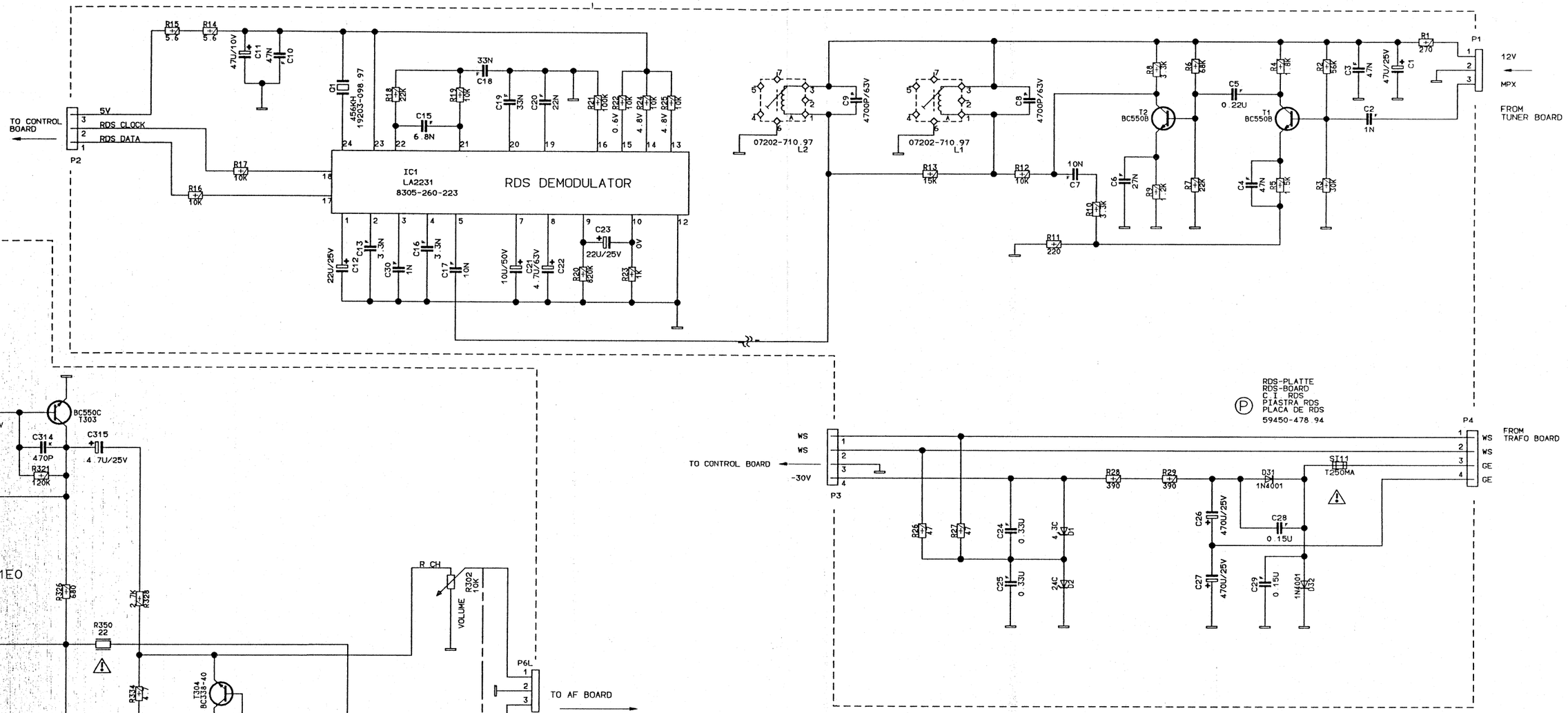
GRUNDIG
R 303

Schaltbild / Circuit Diagram R 303 Schaltbild / Circuit Diagram

Schaltbild / Circuit Diagram







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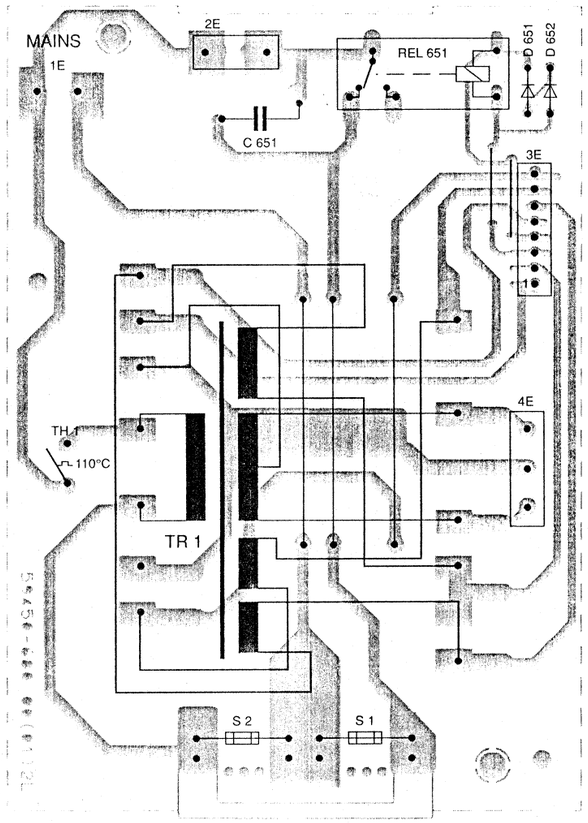
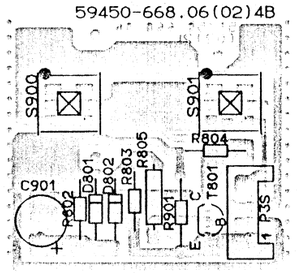
R 303

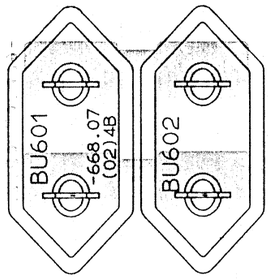
Trafoplatte
Transformer Board (E)



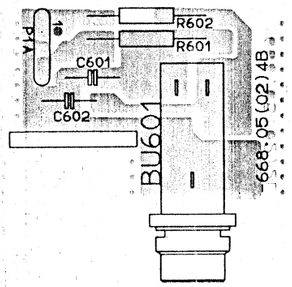
LS-Schalterplatte
LS Switch Board (W)



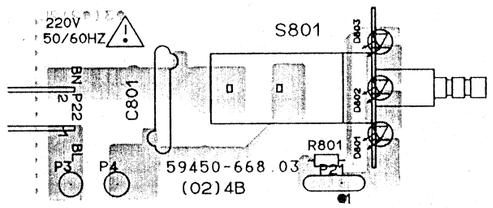
Netzbuchsenplatte
Mains Socket Board (Z)



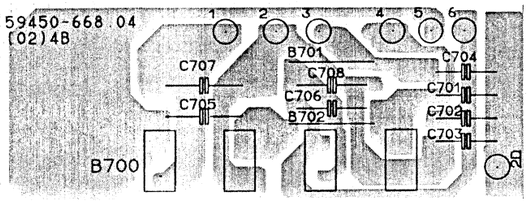
Kopfhörerplatte
Headphone Board (X)



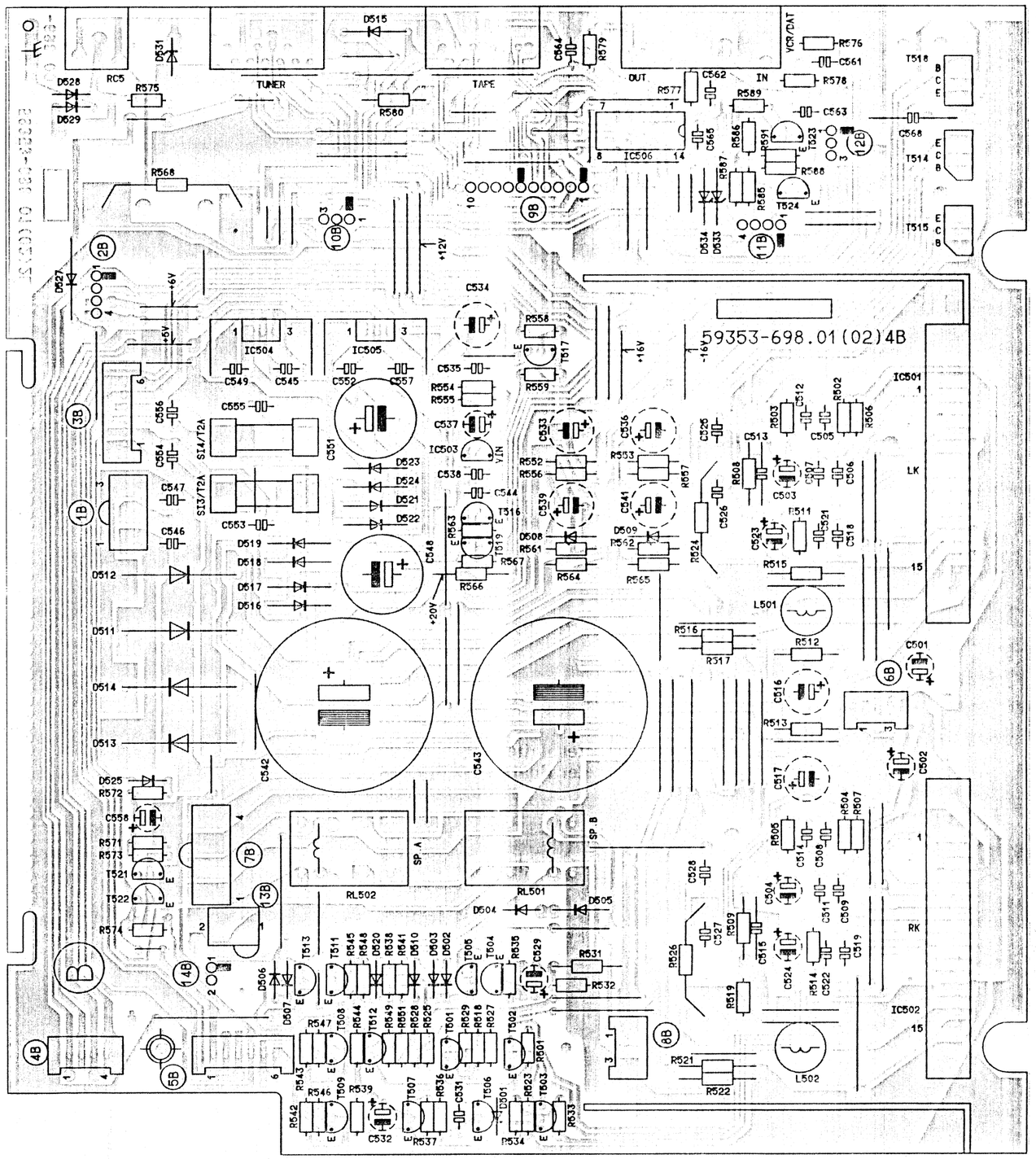
Netzschalterplatte
Mains Switch Board (S)



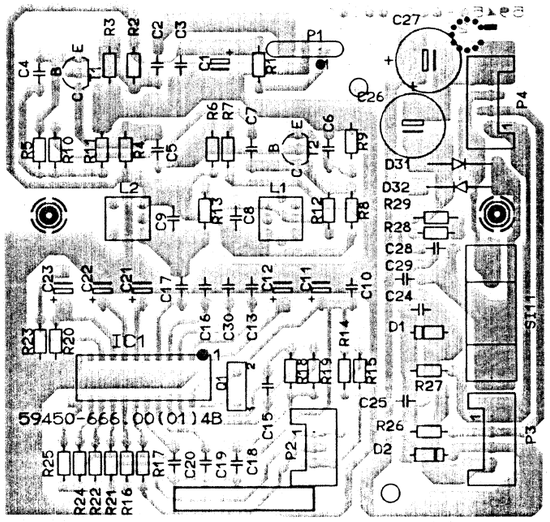
LS-Anschlußplatte
LS Clamp Board (D)



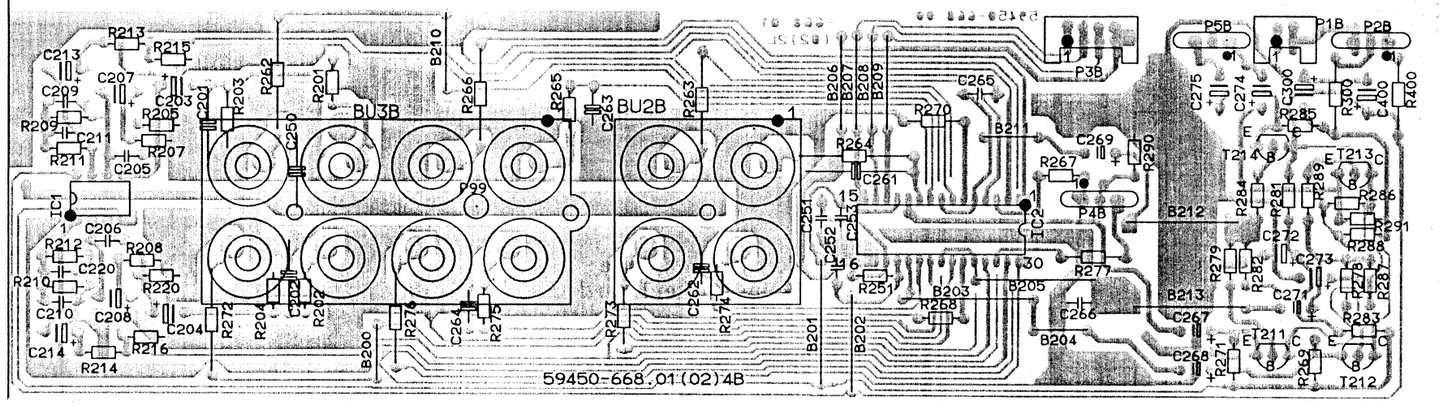
NF-Platte
AF Board (B)



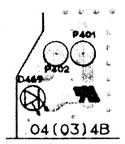
RDS-Platte
RDS Board Ⓟ



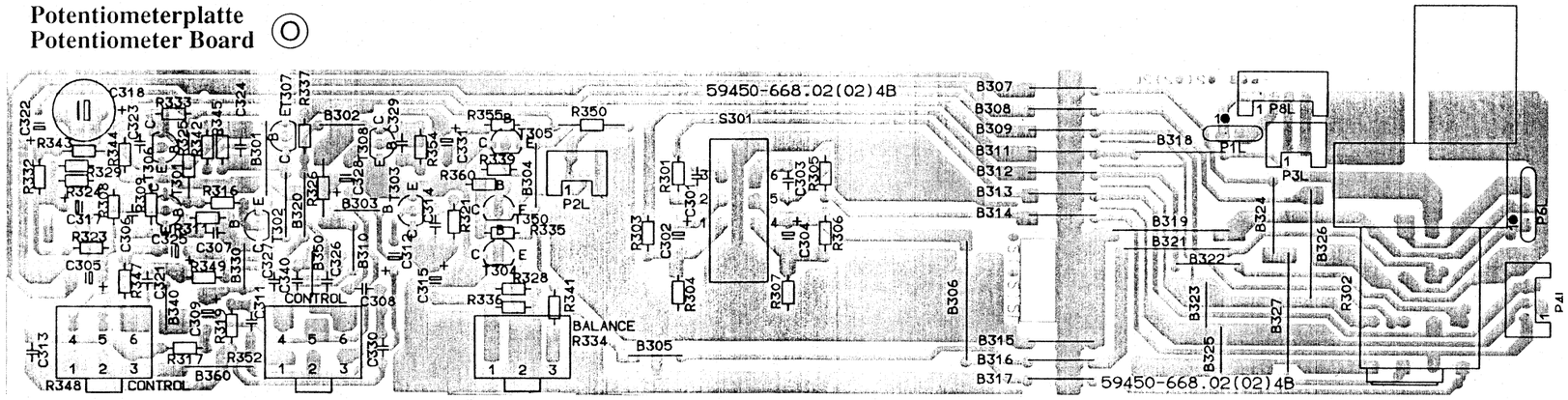
Input-Platte
Input Board Ⓜ



LS-LED-Platte
LS-LED Board Ⓡ

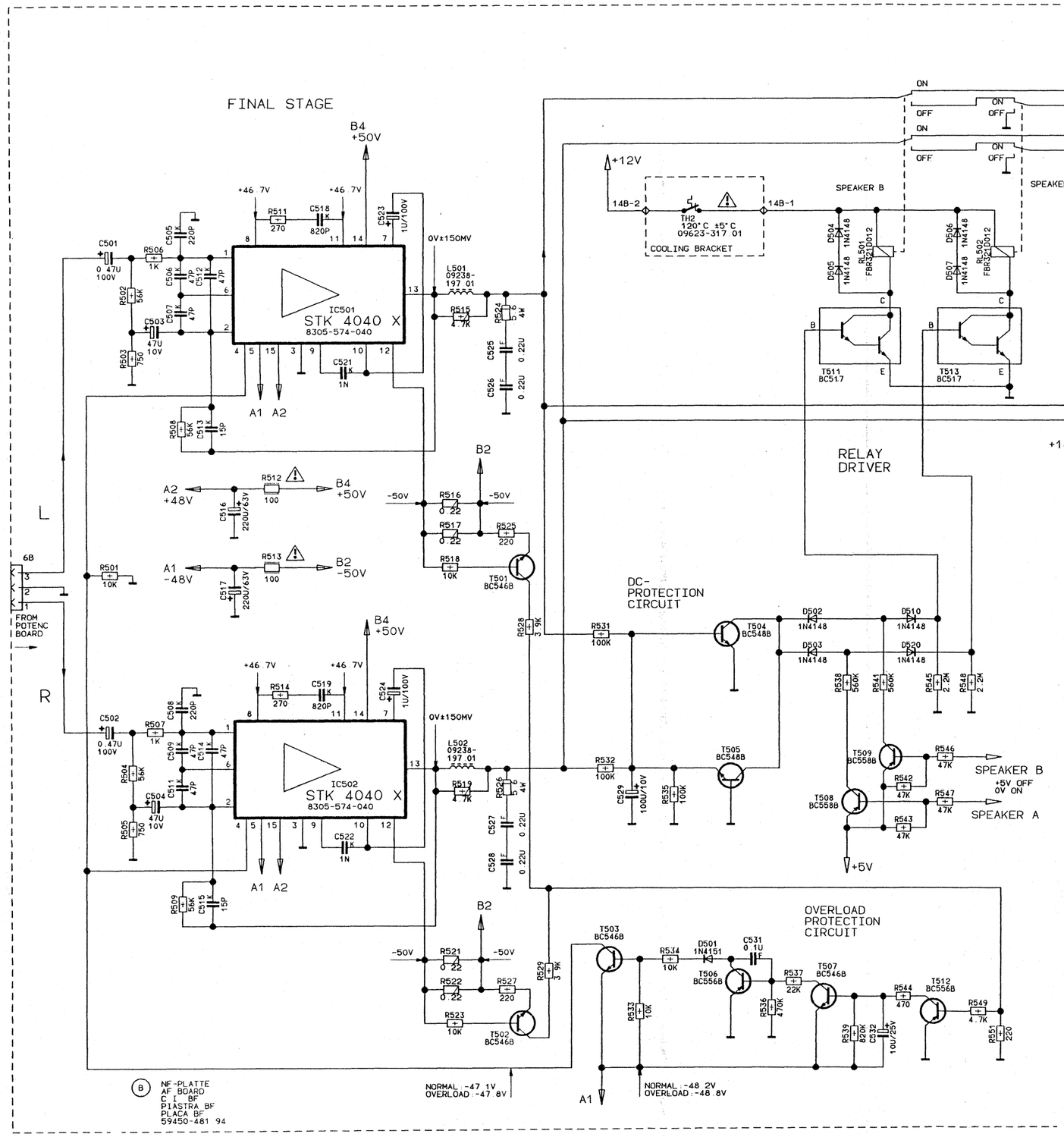


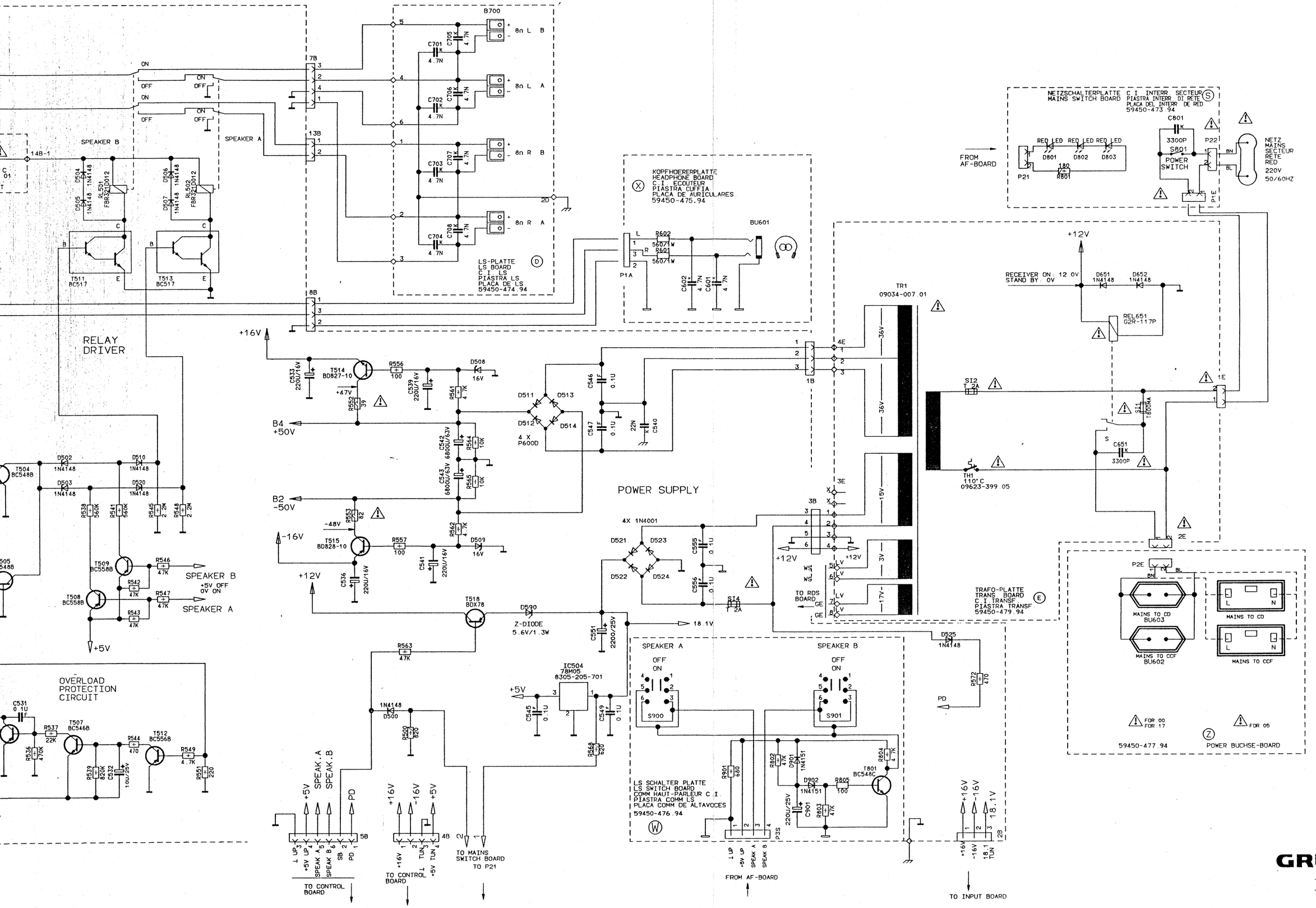
Potentiometerplatte
Potentiometer Board Ⓞ



R 303 Schaltbild / Circuit Diagram

Schaltbild / Circuit Diagram





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R 303

Schaltbild / Circuit Diagram R 303 Schaltbild / Circuit Dia

Schaltbild / Circuit Diagram

59450-459.94
CONTROL BOARD

DP101

IC101
M38112

P113 TO POTENCIO BOARD
P105 FROM AF-BOARD TO 48
P112 TO TUNER BOARD
P114 FROM INPUT BOARD
+16V
+5VTUN
+18.1V
AMUTE

P111 BATTERY CASE
1.5V BA101
1.5V BA102

S108 STEREO
S107 FM/AM
S106 F-DIR
S105 NAME
S104 STORE
S103 FREE
S102 DISP
S101 AUTO
S117 1
S116 2
S115 3
S114 4
S113 5
S112 6
S111 7
S109 8
S126 9
S125 0
S124 FREQ-
S123 FREQ+
S122 MEM-
S121 MEM+

P102
WS
WS
TO RDS-BOARD
-30V
+5V

P120
MOT-
MOT+
TO POTENCIO BOARD
+5V

P109
+5V
RDS CLK
RDS DATA
FROM RDS BD

VCC
VEE
-30V
AMUTE
STBY
RESET
XIN
XOUT
VSS

Q101
Q102
Q103
Q104

TO TUNER PCB
TO INPUT SEL.

P103 FIELD-S +5V CE STEREO TMUTE S-LEVEL D1 D2 CLK
P104 GND CE DO CLK
P117 IR PD

T101 BC558B
T102 BC558B
T103 BC548B
T104 BC338-16
T105 BC328-16
T106 BC328-16
T107 BC338-16
T108 BC548B
T114 BC548B

LM339
8305-204-339

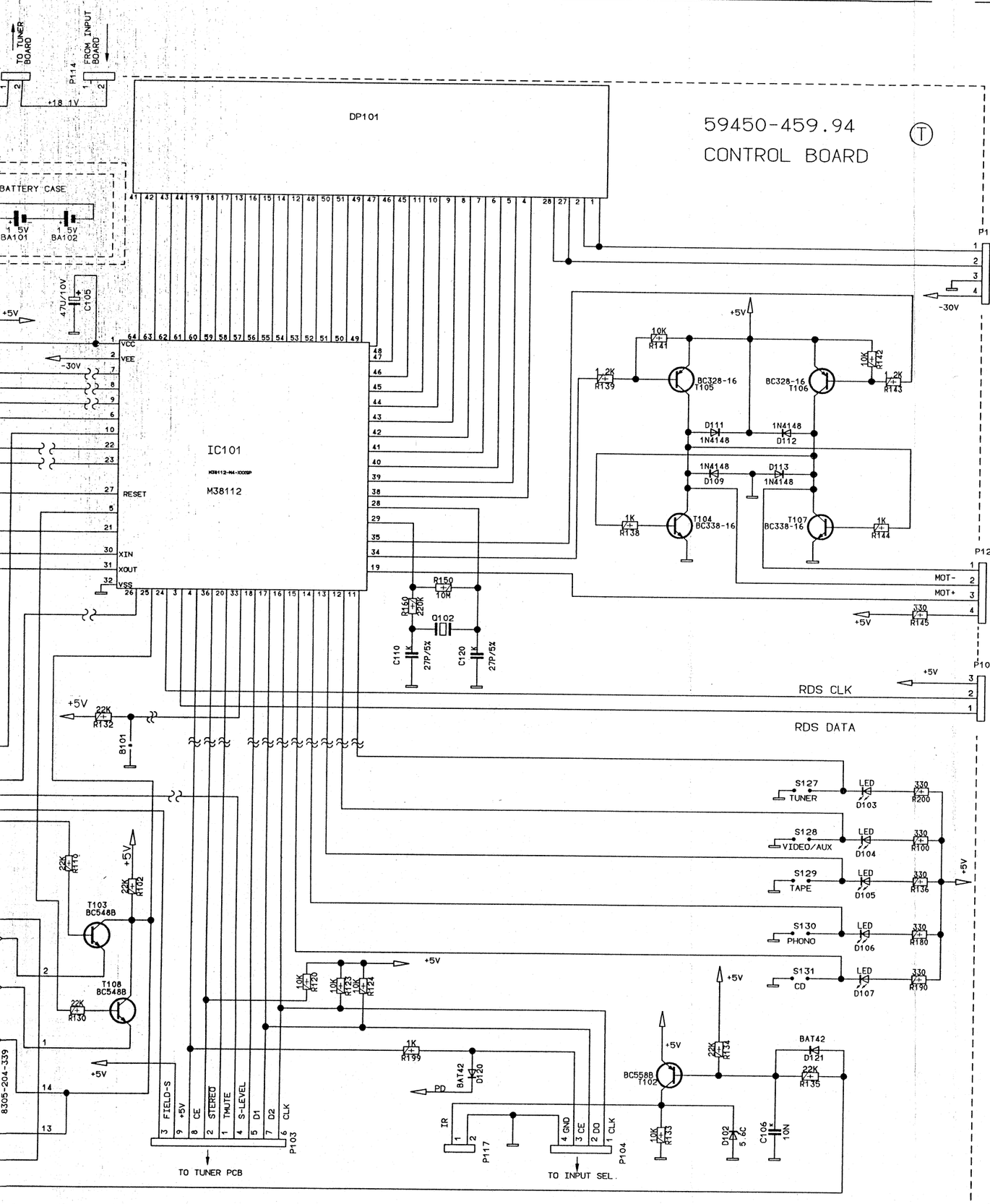
P106 TO LS-SWITCH BOARD
P101 FROM AF-BOARD
6 SPKR
5 SPKA
4 +5VUP
3 GNDUP
2
1 PD

IR201 IR-RECEIVER
IR BOARD 59450-460.94
P201 RC5 +5V GND
P107

S127 TUNER
S128 VIDEO/AUX
S129 TAPE
S130 PHONO
S131 CD
LED D103 D104 D105 D106 D107

RC TAPE BU1B
RC CD
RC5BUS

R 303 Schaltbild / Circuit Diagram



AENDERUNGEN VORBEHALTEN
SUBJECT TO ALTERATION
SOUS RESERVE DE MODIFIC.
CON RISERVA DI MODIFICA
RES. EL DERECHO DE MODIFIC.

FUER DIE GERAETESICHERHEIT ABSOLUT NOTWENDIG UND ENTSPRECHEND DEN RICHTLINIEN DES VDE BZW. IEC. IM ERSATZFALL DUERFEN NUR BAUTEILE MIT GLEICHER SPEZIFIKATION VERWENDET WERDEN.

ABSOLUTELY NECESSARY FOR THE SAFETY OF THE SET. THESE COMPONENTS MEET THE SAFETY REQUIREMENTS ACCORDING TO VDE OR IEC RESP. AND MUST BE REPLACED BY PARTS OF SAME SPECIFICATION ONLY.

ABSOLUMENT NECESSAIRE POUR LA SECURITE DE L'APPAREIL ET CONFORME AUX REGULATIONS VDE ET IEC. EN CAS DE REPLACEMENT N'UTILISER QUE DES COMPOSANTS AVEC LES MEMES SPECIFICATIONS.

NECESSARI PER LA SICUREZZA DELL' APPARECCHIO E SONO CONFORMI ALLE NORMI DI SICUREZZA VDE E IEC. IN CASA DI SOSTITUZIONE IMPIEGARE QUINDI SOLTANTO PEZZI IN RICAMBIO ORIGINALI.

ABSOLUTAMENTE NECESARIO PARA LA SEGURIDAD DEL APARATO Y DE ACUERDO CON LAS NORMAS DE SEGURIDAD VDE O IEC. EN CASO DE SUSTITUCION SUSTITUCION SOLO DEBEN EMPLEARSE COMPONENTES CON LA MISMA ESPECIFICACION.

WIDERSTAND/RESISTOR
RESISTANCE/RESISTENZA/RESISTENCIA

- KSW 0204 DIN
- MSW 0204 DIN
- KSW 0207 DIN
- MSW 0207 DIN
- KSW 0309 DIN / KSW 0411 DIN
- KSW 0617 DIN
- MSW 0309 DIN
- NTC
- MSW 0414 DIN

- DRAHT / WIRE / BOBINEE / A FILO / BOBINADA
- METALLOXYDSCHICHT / METAL OXIDE / A OXYDE METALLIQUE / AD OSSIDO METALLICO / DE CAPA DE OXIDO METALICO
- RAUSCHARM / LOW NOISE / A SOUFFLE REDUIT / A BASSO RUMORE / DE BAJO RUIDO
- SCHWER ENTFLAMMBAR / LOW FLAMMABILITY / PEU INFLAMMABLE / A BASSA INFLAMMABILITA / DIFICILMENTE INFLAMABLE
- SICHERUNGSWIDERSTAND / SAFETY RESISTOR / FUSIBLE / DI SICUREZZA / RESISTENCIA FUSIBLE

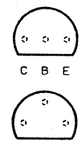
KONDENSATOR/CAPACITOR
CONDENSATEUR/CONDENSATORE/CONDENSADOR

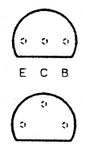
- ELKO / ELECTROLYTIC / ELECTROLYTIQUE / ELETTROLITICO / ELECTROLITICO
- TANTAL ELKO / TANTALUM ELECTROLYTIC / ELECTROLYTIQUE AU TANTALE / ELETTROLITICO AL TANTALIO / ELECTROLITICO DE TANTALO
- FOLIE / FOIL / A FEUILLE / A FOGLIA / DELAMINA
- KERAMIK / CERAMIC / CERAMIQUE / A CERAMICA / CERAMICO
- GLIMMER / MICA / AU MICA / A MICA / DE MICA
- VIELSCHICHT / MULTILAYER / A COUCHES MULTIPLES / A PIU' STRATI / MULTICAPA
- POLYPROPYLEN / DE POLIPROPILENO (KS-KP)

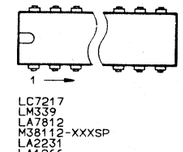
TO POTENCIO BOARD

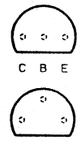
FROM RDS BD

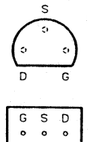
ACHTUNG!
VORSCHRIFTEN BEIM UMGANG MIT MOS-BAUTEILEN BEACHTEN!
ATTENTION!
OBSERVE MOS COMPONENTS HANDLING INSTRUCTIONS WHEN SERVICING!
ATTENTION!
LORS DE LA MANIPULATION DES CIRCUITS MOS RESPECTER LES PESCRIPTIONS MOS!
ATTENZIONE!
OSSERVARE LE RELATIVE PRESCRIZIONI DURANTE LAVORI CON COMPONENTI MOS!
ATENCION!
RESPETAR EL TRATAMIENTO DE COMPONENTS MOS

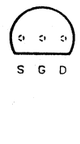




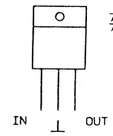








VON OBEN GESEHEN
TOP VIEW
VUE DE HAUT
VISTA DA SOPRA
VISTO DESDE ARRIBA



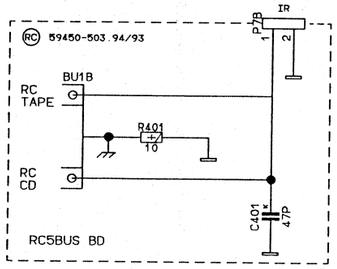
SPANNUNGEN MIT VOLTMETER (RI=10MΩ) FALLS NICHT ANDERS ANGEGEBEN, GEGEN MASSE GEMESSEN. MESSWERTE GELTEN BEI 220V NETZSPANNUNG.

IF NOT OHERWISE INDICATED ALL VOLTAGES ARE MEASURED AGAINST CHASSIS WITH A VOLTMETER (RI=10M) THE VALUES ARE VALID FOR 220V AC MAINS VOLTAGES

SAUF INDICATION CONTAIRE, LES TENSIONS SONT MESUREES PAR RAPPORT AU CHASSIS AVEC UN VOLTMETRE (RI=10M) LES VALEURS SONT VALABLES POUR UNE TENSION SECTEUR DE 220V CA

TENSIONI MISURATE CON VOLTMETRO (RI=10M), SALVE ALTRE IDICATIONI, RIFERITE A MASSA. I VALORI DI MISURA VALGONO CON TENSIONE DI RETE DI 220V

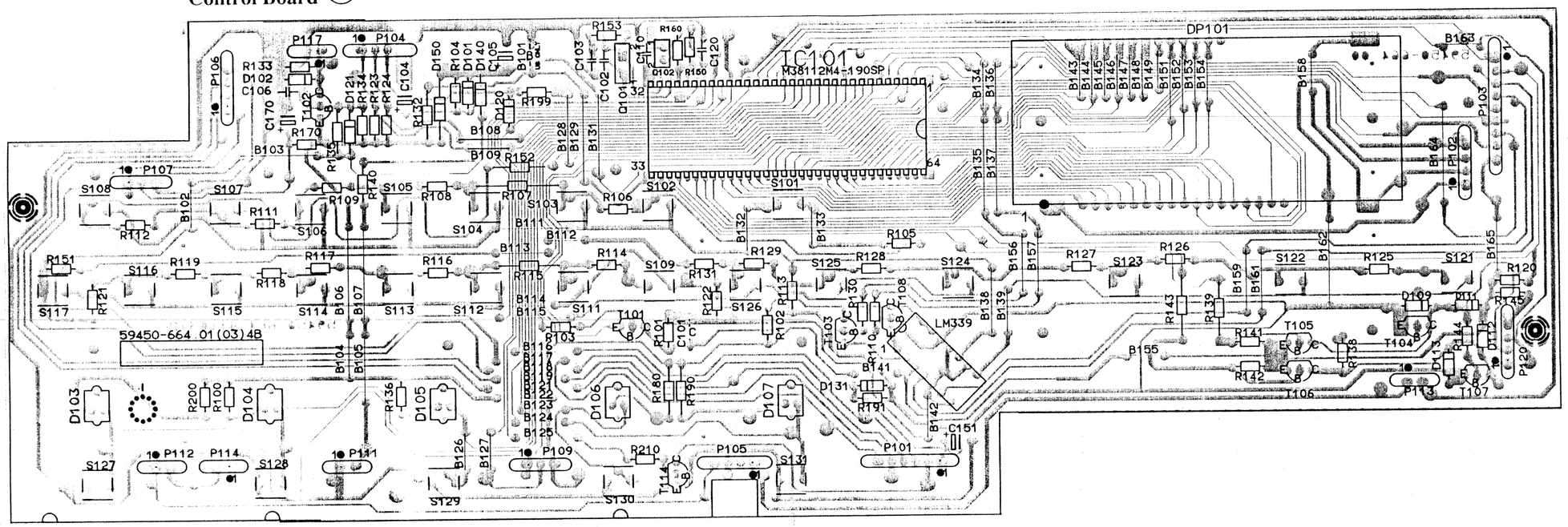
LAS TENSIONES, SIEMPRE QUE NO SE INDIQUE OTRA COSA, SE MIDEN CON RESPECTO A MASA CON VOLTIMETRO (RI=10MΩ) LOS VALORES DE MEDIDA SON VALIDOS CON 220V DE TENSION DE RED.



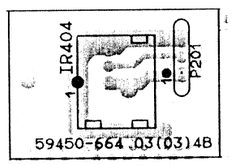
GRUNDIG
R 303

GRUNDIG Service-Technik

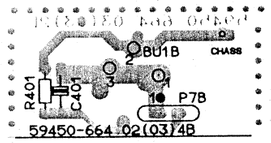
Controlplatte
Control Board Ⓣ



IR-Platte
IR Board Ⓥ



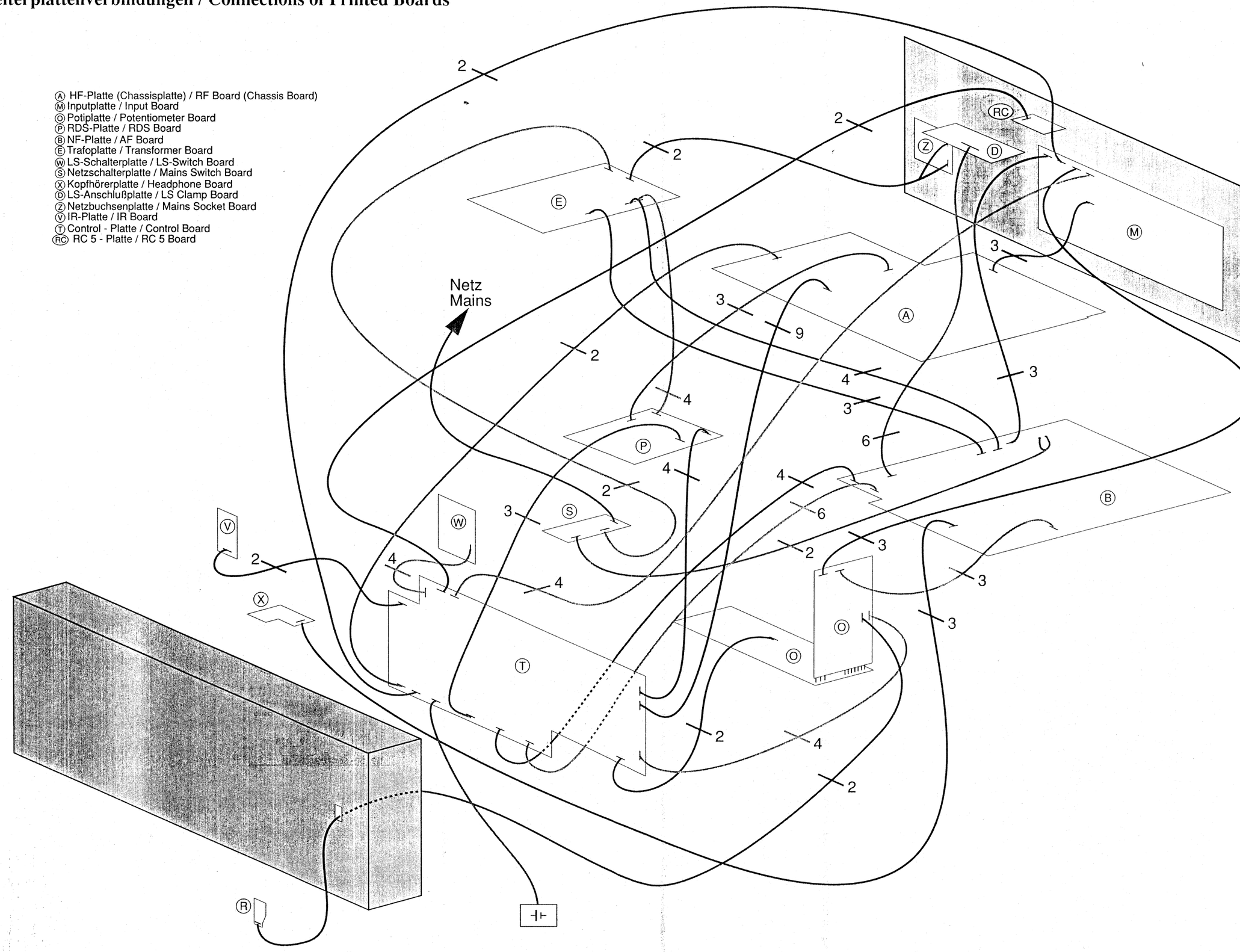
RC-5-Platte
RC 5 Board RC



Leiterplattenverbindungen / Connections of Printed Boards R 303

Leiterplattenverbindungen / Connections of Printed Boards

Ⓐ HF-Platte (Chassisplatte) / RF Board (Chassis Board)
Ⓜ Inputplatte / Input Board
Ⓞ Potiplatte / Potentiometer Board
Ⓟ RDS-Platte / RDS Board
Ⓑ NF-Platte / AF Board
Ⓔ Trafoplatte / Transformer Board
Ⓦ LS-Schalterplatte / LS-Switch Board
Ⓢ Netzschalterplatte / Mains Switch Board
Ⓧ Kopfhörerplatte / Headphone Board
Ⓓ LS-Anschlußplatte / LS Clamp Board
Ⓩ Netzbuchsenplatte / Mains Socket Board
Ⓥ IR-Platte / IR Board
Ⓣ Control - Platte / Control Board
Ⓡⓒ RC 5 - Platte / RC 5 Board



Änderungen vorbehalten
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